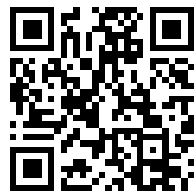

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An ordinary member wishing to resign at any time during a year in which one or more Journals have been sent to him must pay his subscription in full for that year, and notify his wish to resign before his name can be struck off the list of members.

Members are responsible that they keep the Secretary carefully posted in regard to changes of rank and address. Duplicate copies of the Journal will not be supplied free to members when the original has been posted to a member's last known address, and not returned by the post.

All communications shall be addressed to the Secretary, United Service Institution of India, Simla.

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4. There is a well-stocked library in the Institution, from which members can obtain books on loan free. Members not resident in Simla may have books from the Library sent to them *post free* (See Secretary's Notes).
5. The Institution publishes a Quarterly Journal in the months of January, April, July and October which is issued, postage free, to members in any part of the world.
6. Members and the public are invited to contribute articles to the Journal of the Institution for which payment is made. Information for the guidance of contributors will be found in the Secretary's Notes.
7. In order to assist members studying for military promotion or Staff College entrance examinations, the Institution has obtained a number of tactical schemes with solutions, and a series of précis of important lectures. These schemes and précis are issued to members on payment of a small charge. Lists of schemes and précis with their prices are given in the Secretary's Notes.



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United Service Institution of India

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I.—NEW MEMBERS

The following new members joined the Institution from 1st September to 30th November 1936:—

Life Member:

Lieut. F. D. I. Wood.

Ordinary Members:

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Captain C. J. A. Grove.

Captain Jaswant Singh.

Captain R. R. Wisher.

Lieut. K. Bhagwati Singh.

Lieut. St. H. W. T. Lewis.

Lieut. H. C. H. Mead.

Lieut. C. L. Richardson.

Lieut. M. Umrao Khan.

2/Lieut. W. W. Stewart.

II.—THE JOURNAL

The Institution publishes a quarterly Journal in the months of January, April, July and October, which is issued postage-free to members in any part of the world. Non-members may obtain the Journal at Rs. 2-8 per copy, or Rs. 10 per annum. Advertisement rates may be obtained on application to the Secretary.

III.—CONTRIBUTIONS TO THE JOURNAL

Articles may vary in length from two thousand to ten thousand words. They should be submitted in duplicate and typewritten on one side of the paper. Manuscript articles cannot be considered. Payment is made on publication at from Rs. 40 to Rs. 100 in accordance with the value and length of the contribution.

With reference to Regulations for the Army in India, paragraph 204 and King's Regulations, paragraph 535, action to obtain the sanction of His Excellency the Commander-in-Chief to the publication of any article in the Journal of the United Service Institution of India will be taken by the Executive Committee of the Institution.

The Committee reserve to themselves the right to omit any matter which they consider objectionable.

Articles are only accepted on these conditions.

IV.—READING ROOM AND LIBRARY

The United Service Institution of India is situated on the Mall, Simla, and is open all the year round—including Sundays—from 9 a.m. until sunset. The Reading Room of the Institution is provided with most of the leading illustrated papers, newspapers, magazines and journals of military, naval and service interest.

There is a well-stocked library in the Institution from which members can obtain books on loan free in accordance with the following rules:—

(1) The library is only open to members and honorary members, who are requested to look upon books as not transferable to their friends.

(2) No book shall be taken from the Library without making the necessary entry in the register. Members residing permanently or temporarily in Simla are requested to enter their addresses.

(3) A member shall not be allowed, at one time, more than three books or sets of books.

(4) No particular limit is set as to the number of days for which a member may keep a book, the Council being desirous of making the Library as useful as possible to members; but if after the expiration of a fortnight from date of issue it is required by any other member, it will be recalled.

(5) Applications for books from members at outstations are dealt with as early as possible and books are despatched post free per Registered Parcel Post. They must be returned carefully packed per Registered Parcel Post within one month of the date of issue.

(6) If a book is not returned at the end of one month, it must be paid for if so required by the Executive Committee. Lost and defaced books shall be replaced at the cost of the member to whom they were issued. In the case of lost books which are out of print, the value shall be fixed by the Executive Committee and the amount, when received, spent in the purchase of a new book.

(7) The issue of a book under these rules to any member implies the latter's compliance with the rules and the willingness to have them enforced, if necessary, against him.

(8) The catalogue of the Library has been revised and is now available for sale at Rs. 2-8 per copy plus postage. The Library has been completely overhauled and all books re-classified, hence the new catalogue meets the general demand for an up-to-date production containing all military classics and other works likely to be of use to members of the Institution. Members who have not yet ordered their copies are advised to send a post card to the Librarian of the Institution, Simla.

V.—LIBRARY BOOKS

A list of the books received during the preceding quarter is enclosed in loose leaf form suitable for cutting into strips for pasting in the Library catalogue.

The Institution is in possession of a collection of old and rare books presented by members from time to time and, while such books are not available for circulation, they can be seen by members visiting Simla.

The Secretary will be glad to acknowledge the gift of old books, trophies, medals, etc., presented to the Institution.

VI.—PROMOTION EXAMINATIONS

(a) *Military History*—(Reference I. A. O. 257 of 1935).

The following table shows the campaigns on which military history papers will be set for Lieutenants for promotion to Captain in sub-head *b* (iii), and for Captains for promotion to Major in sub-head *d* (iii), with a list of books recommended for the study of each:—

1 Serial No.	2 Date of Examination.	3 Campaign set for first time.	4 Campaign set for second time.	5 Campaign set for last time.
1	March 1937.	The Russo-Japanese War, previous to the Battle of Liao-Yang until the 24th August 1904 (excluding the actual siege operations at Port Arthur).	..	Mesopotamia, from October 1915 to the occupation of Baghdad, 11th March 1917.
2	October 1937.	Mesopotamia, from 12th March 1917 to the Armistice.	The Russo-Japanese War, previous to the Battle of Liao-Yang until the 24th August 1904 (excluding the actual siege operations at Port Arthur).	..
3	March 1938.	..	Mesopotamia, from 12th March 1917 to the Armistice.	The Russo-Japanese War, previous to the Battle of Liao-Yang until the 24th August 1904 (excluding the actual siege operations at Port Arthur).
4	October 1938.	..	..	Mesopotamia, from 12th March 1917 to the Armistice.

The following books are recommended for the study of the campaigns:—

Campaign.	Book.
Mesopotamia—	
March 1936 to March 1937. ..	History of the Great War—Military Operations—Mesopotamia, Vols. II and III (less Chapters XXXIV <i>et seq.</i>).
October 1937 to October 1938. ..	History of the Great War—Military Operations—Mesopotamia, Vols. III (Chapters XXXIV <i>et seq.</i>) and IV.
All	A Brief Outline of the Campaign in Mesopotamia, 1914—1918. Major R. Evans, M.C. (<i>Sifton Praed</i>).
The Russo-Japanese War ..	Official History of the Russo-Japanese War, Parts I (second edition) and II (<i>British—Military</i>), or Official History of the Russo-Japanese War (Naval and Military). Vol. I, Chapters 1—17 (less 4, 7, 9 and 10).

The campaigns set for Majors, R.A.M.C. and R.A.V.C., up to and including 1937, are published in I.A.O.s 72 of 1935 and 49 of 1936.

(b) *Other Subjects.*

In addition to the manuals and regulations mentioned in K.R. and R.A.I., the following books are recommended:—

"Modern Military Administration, Organisation and Transportation" (Harding-Newman).

"Military Organisation and Administration" (Lindsell).

"A. and Q. or Military Administration in War" (Lindsell).

"A Study of Unit Administration" (Gale and Polden).

"Military Law" (Banning).

"The Defence of Duffers' Drift," 1929 (Swinton).

"Tactical Schemes, with Solutions, Series I and II" (Kirby and Kennedy).

"Elementary Tactics or the Art of War, British School," Vol. I (Pakenham Walsh).

"Imperial Military Geography" (Cole).

"Elements of Imperial Defence" (Boycott).

"Changing Conditions of Imperial Defence" (Cole).

"A Practical Digest of Military Law" (Townshend-Stephens. Pub. Sifton Praed).

VII.—*STAFF COLLEGE EXAMINATION*.—[See Staff College Quetta, Regulations, 1930, obtainable from the Manager of Publications, Delhi or Calcutta.]

(a) Campaigns.

The following campaigns have been set for the Staff College Entrance Examination:—

Strategy of—

Napoleon's Campaign of 1796 in Italy.

Waterloo Campaign.

Peninsula Campaign, up to and including the Battle of Salamanca.

The Strategy and Broad Tactical Lessons of—

The American Civil War.

Russo-Japanese War, up to and including the Battle of Liao-Yang.

The Great War in France, Belgium, Mesopotamia, the Dardanelles and Palestine, including a knowledge of the influence on the strategy in these areas of the events in other theatres of the War.

The East Prussian Campaign, 1914.

The Strategy and Tactics of—

The Palestine Campaign from 9th November 1917 to the end of the War.

The Action of the British Expeditionary Force in France and Belgium up to and including the first battle of Ypres.

The 3rd Afghan War, 1919.

(b) In addition to his official books every student is recommended to provide himself with a copy of—

(i) Military Organisation and Administration (Lindsell).

Military Law (Banning).

British Strategy (Maurice).

Notes on the Land and Air Forces of British Overseas Dominions, Colonies and Protectorates (Official).

Outline of the Development of the British Army up to 1914 (Hastings Anderson).

Imperial Military Geography (Cole).

An Atlas.

(ii) The following pamphlets, etc., can be borrowed from the Orderly Room, and should be studied:—

Examination papers for admission to the Staff College.

Training Memoranda—War Office.

Training Memoranda—A.H.Q. India.

Notes on certain Lessons of the Great War.

Passing it on (Skeen).

- (iii) Periodicals, etc., to which students should subscribe—
“The Times.”
“U. S. I. (India) Journal.”
- (iv) Books which can be obtained from libraries—
(*Note*.—Those marked with an asterisk should be used only as books of reference.)
- R. U. S. I. Journal.
Army Quarterly.
Round Table.
Journal of the Institute of International Affairs.
Science of War (Henderson).
Transformation of War (Colin).
The War of Lost Opportunities (Hoffman).
*The Principles of War (Foch).
*The Direction of War (Bird).
Soldiers and Statesmen (Robertson).
*Historical Illustrations to F. S. R. II (Eady).
*In the Wake of the Tank (Martel).
*The Re-making of Modern Armies (Liddell Hart).
*The British Way in Warfare (Liddell Hart).
*Napoleon's Campaign in 1796 in Italy (Burton).
*Waterloo Campaign (Robinson).
*Outline History of Russo-Japanese War, 1904, up to the Battle of Liao-Yang (Pakenham Walsh).
The Campaign of Liao-Yang (Rowan Robinson).
*The World Crisis (Churchill).
*A History of the Great War (Cruttwell).
The Palestine Campaign (Wavell).
A Brief Outline of the Campaign in Mesopotamia (Evans).
*The Dardanelles Campaign (Callwell).
*German Strategy in the Great War (Neame).
*Official Histories of the War—France, Egypt, Palestine, Mesopotamia, Gallipoli.
*Waziristan, 1919-20 (Watteville).
*The Third Afghan War (Official).
A. & Q. (Lindsell).
Changing Conditions of Imperial Defence (Cole).
The British Empire (Lucas).
*The Government of the British Empire (Jenks).

- *The Foundation and Growth of the British Empire (Williamson).
- *A Short History of British Expansion (Williamson).
- *Expansion of the British Empire (Woodward).

(v) Books and Articles on Transportation—

Railways in War. Lieutenant-Colonel E. St. G. Kirke, D.S.O., R.E., Army Quarterly, January 1930.

Strategic Moves by Rail, 1914. Journal R. U. S. I., February and May 1935.

The Lines of Communication in the Dardanelles. Lieutenant-General Sir G. MacMunn. Army Quarterly, April 1930.

The Lines of Communication in Mesopotamia. Lieutenant-General Sir G. MacMunn. Army Quarterly, October 1927.

History of the R. A. S. C., Vol. II (all campaigns).

The Supply and Transportation Problem of Future Armies. Major B. C. Denning, M.C., R.E., Journal U. S. I. India, April 1932.

The Supply of Mechanised Forces in the Field. Journal R. U. S. I., 1929.

The Board of Trade and the Fighting Services. Journal R. U. S. I., 1929.

Railway Organisation of an Army in War. Lieutenant-Colonel Anderson, D.S.O., R.E., Journal R. U. S. I., 1927.

What is Required of a Railway in a Theatre of Operations. Major-General Taylor, R.E., Journal, September 1932.

F. S. P. B. War Office, 1932. Read Sections 36 to 38. Do not memorise detail. Know where to find it.

F. S. P. B. India.

VIII.—SCHEMES, ETC.

The following papers and précis of lectures set for the A.H.Q. Staff College Course, 1935, are available for issue to members of the Institution at the nominal price of annas four per copy, plus postage.

STAFF COLLEGE SERIES, 1935.

Tactical Schemes—

D. M. T.'s Paper No. 1.

"	"	"	2.
"	"	"	3.
"	"	"	4 (without solution).
"	"	"	5.
"	"	"	6.
"	"	"	7.
"	"	"	8.
"	"	"	9.
"	"	"	10.

Précis of Lectures

1. Staff College Examination.
2. Night Operations.
3. Strategy and Tactics. Political Objects in War.
4. Strategy and Tactics. Fog in War.
5. Strategy and Tactics. Gallipoli.
6. Maintenance of Material and Animals.

A.H.Q. STAFF COLLEGE COURSE, 1936.

The stock of complete sets of papers referred to in the notice published with I.A.O.s, dated 18th August 1936, is exhausted, but copies of the papers detailed below may be had at two annas each, postage free.

The following maps are for use with the papers noted against them, and may be had at Rs. 2 each, postage free:

Map 1" to 1 mile Sheet 93 (for papers Nos. 30 to 43).

Map 1" to 1 mile Sheet 94 (for papers Nos. 30 to 39).

Map 1" to 1 mile Sheet 38 N/14 (for paper No. 44).

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IX.—HISTORICAL RESEARCH

The U. S. I. is prepared to supply members and units with typewritten copies of old Indian Army List pages, at the rate of Rs. 2 per typewritten page.

The staff of the Institution is always willing to assist units, authors of regimental histories and members by searching the many old military records in the Library on their behalf.

X.—THE MacGREGOR MEMORIAL MEDAL

1. The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor. The medals are awarded for the best military reconnaissances or journeys of exploration of the year.

2. The following awards are made annually in the month of June:

(a) For officers—British or Indian—silver medal.

(b) For soldiers—British or Indian—silver medal with Rs. 100 gratuity.

3. For especially valuable work, a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the Fund deem it desirable. Also the Council may award a special additional silver medal, without gratuity, to a soldier, for especially good work.

4. The award of medals is made by His Excellency the Commander-in-Chief, as Vice-Patron, and the Council of the United Service Institution, who were appointed administrators of the Fund by the MacGregor Memorial Committee.

5. Only officers and soldiers belonging to the Army in India (including those in civil employ) are eligible for the award of the medal.*

6. The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal.†

7. Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but, in the event of two journeys being of equal value, the man who has run the greater risk will be considered to have the greater claim to the reward.

8. When the work of the year has either not been of sufficient value or has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief to deserve it.

*N.B.—The terms "officer" and "soldier" include those serving in the British and Indian armies and their reserves, also those serving in Auxiliary Forces, such as the Indian Auxiliary and Territorial Forces and Corps under Local Governments, Frontier Militia, Levies and Military Police, also all ranks serving in the Royal Air Force, Indian Air Force, Royal Indian Navy and the Indian States Forces.

†Replacements of the ribbon may be obtained on payment from the Secretary, U.S.I., Simla.

GOLD MEDAL PRIZE ESSAY COMPETITION, 1937

The Council has chosen the following subjects for the Gold Medal Prize Essay Competition for 1937:

- (i) "It has been stated that the Defence of India and of Burma is, from the strategic aspect, a single problem. Discuss the truth of this statement, taking as the basis of your argument the threats which exist to the security of both countries in the world conditions of to-day;"

or, as an alternative subject,

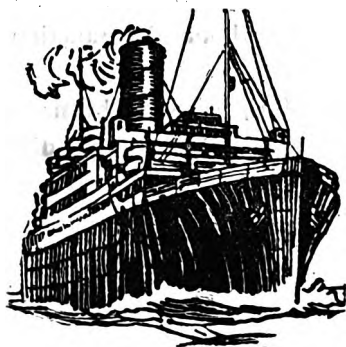
- (ii) "Mr. Baldwin has said that 'The Rhine is our Frontier.' Discuss this."

The following are the conditions of the competition:

- (1) The competition is open to all gazetted officers of the Civil Administration, the Royal Navy, Army, Royal Air Force, Auxiliary Forces and Indian States Forces.
- (2) Essays must be typewritten and submitted in triplicate.
- (3) When reference is made to any work, the title of such work is to be quoted.
- (4) Essays are to be strictly anonymous. Each must have a motto, and, enclosed with the essay, there should be sent a sealed envelope with the motto written on the outside and the name of the competitor inside.
- (5) Essays will not be accepted unless received by the Secretary on or before the 30th June 1937.
- (6) Essays will be submitted for adjudication to three judges chosen by the Council. The judges may recommend a money award, not exceeding Rs. 150, either in addition to, or in substitution for, the medal. The decision of the three judges will be submitted to the Council, who will decide whether the medal is to be awarded and whether the essay is to be published.
- (7) The name of the successful candidate will be announced at a Council Meeting to be held in September or October 1937.

- (8) All essays submitted are to become the property of the United Service Institution of India absolutely, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.
- (9) Essays should not exceed 15 pages of the size and style of the Journal, exclusive of any appendices, tables or maps.

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The Journal
OF THE
United Service Institution of India

Vol. LXVII JANUARY, 1937 No. 286

The views expressed in this Journal are in no sense official, and the opinions of contributors in their published articles are not necessarily those of the Council of the Institution.

EDITORIAL

On the 3rd December 1936, the countries of the British Empire were gravely disturbed to hear of matters affecting both the private affairs and the constitutional position of His Majesty King Edward VIII. It was on the 10th December that the Empire heard with dismay that His Majesty had decided to abdicate after a short reign of less than one year. It is not our desire, nor indeed is it our right to criticise or comment on any of the reasons that led his late Majesty to make a decision unprecedented in the history of the British peoples; rather do we express our profound sorrow and regret that a reign which had opened so auspiciously should have ended so abruptly.

Much has appeared in the daily Press on the subject, and our members are no doubt fully aware of the circumstances in which this momentous decision was made, so that further comment is unnecessary. In spite of the general state of anxiety and bewilderment that followed the original announcement of the crisis, the attitude of all His Majesty's subjects, both at home and abroad, seems to have been admirable, and there is no doubt of their devotion to the Crown. It is also some consolation to realise that the constitutional procedure of the British Commonwealth of Nations as laid down in the Statute of Westminster has successfully survived its first serious test, and that all countries of the Commonwealth have individually accepted the change in the succession to the Throne.

His Majesty King George VI was proclaimed King-Emperor in India on the 14th December 1936, and we respectfully offer to him and the Queen-Empress our loyal homage and devotion.

* * * * *

**The North-
West Fron-
tier.**

We have had no occasion to report any unusual occurrence on the North-West Frontier during the past year, but events in Waziristan took a serious turn in November 1936. For some months past the situation in the Khaisora Valley had been unsatisfactory owing to the anti-government activities of the Faqir of Ipi, in particular in the area inhabited by the Tori Khel Wazirs. An agreement had been entered into with this section in 1935, by which the Khaisora Valley had been opened to the movement of troops in return for allowances and other benefits. In April 1936, the Faqir led a *lashkar*, consisting mainly of Lower Daurs, into the Khaisora with a view to bringing pressure to bear on the Government regarding a recent decision made in a kidnapping case. His activities had continued since that month and, as the situation was becoming more unsatisfactory, it was decided to make a demonstration in the Khaisora Valley in November to counteract the influence of the Faqir. No punitive action was intended.

On the 25th November columns left Mir Ali and Damdil with the object of reaching Biche Kashkai on that date and returning to their starting points by the 27th November. No opposition beyond occasional sniping was anticipated. However, considerable opposition was experienced by both columns and the troops suffered a number of casualties. The opposition appears to have been from Tori Khels assisted by certain Mahsuds. The column from Mir Ali failed to reach Biche Kashkai that night and was forced to bivouac. It arrived at Biche Kashkai on the 26th November. Both columns moved to Mir Ali on the 27th November, encountering some opposition on the way and having the rear-guard somewhat heavily engaged. Our casualties during the whole operation were 20 killed (including 2 British officers) and 88 wounded, and it is estimated that 47 tribesmen were killed and 117 wounded. Our columns were ably assisted by the Royal Air Force.

On the 2nd December, the orders of Government were conveyed to both the Tori Khel Wazir and Shaktu Mahsud jirgas. It was announced that Government forces would march into the

Khaisora Valley and remain there as long as Government considered necessary, that a road would be constructed into the Khaisora from Mir Ali, and that fines in rifles and other penalties would be exacted from those sections which had made war against the Government. The attitude of both jirgas appears to have been satisfactory, and those of the Mahsuds and of other tribes who were showing interest in the situation appear to have returned to their homes.

In addition to the orders conveyed to the jirgas, notices were dropped by aircraft on the 3rd December warning the inhabitants of the Khaisora that air action would be taken against formed bodies of 10 or more men, and advising the evacuation of all women and children.

Since then the road has been constructed to the Khaisora River and has now reached Biche Kashkai. Considerable opposition to this road building programme had been anticipated but, apart from occasional sniping, very little materialised. Except for a few isolated attempts at sabotage on the roads, and successful action by the Royal Air Force against armed bands in the proscribed area, there is very little further to report. It is to be hoped that the situation in this area will soon return to normal, as the weather in Waziristan at this time of year is apt to be very inclement.

The early collapse of the rising and the ease with which the disaffected area has been penetrated are remarkable. Had there not been a strong garrison in Waziristan and excellent roads encircling the seat of the trouble, it is more than likely that an expedition of some magnitude, involving protracted operations, would have had to be dispatched into tribal territory, or air operations on a considerable scale undertaken.

Turning to another part of the Frontier, it is satisfactory to note that, as a result of Government action in enforcing a blockade of the usual Afridi winter migration to the Peshawar district, in the stoppage of allowances and the issuing of a warning that grazing on the Khajuri plain might be closed, a settlement may now be reached in the Khyber. The Afridis have agreed to withdraw permanently the piquets overlooking Shagai or pay a heavy annual fine in default, and Government has agreed to lift the blockade and restore the tribal allowances. It will be interesting to see if the Afridi hot heads will now agree to the construction of a road into the Tirah, which would be of great value for the development and pacification of that area.

The decision to send a further division of troops to Palestine at the beginning of October seems to have had a good effect since there have been no further serious outrages, and it was found possible to send men of class "A" of the Reserve back to England at the beginning of November. On the other hand, settlement of the Arab-Jewish problem appears to be as far off as ever. In the latter half of October, the Arab Strike Committee announced its intention of instituting a Jewish boycott, and have tried to carry this into effect. On the 6th November it was decided to restrict the Jewish immigration quota into Palestine by 80 per cent, but the Arab Higher Committee announced its intention of boycotting the Royal Commission, on the grounds that Jewish immigration had not been suspended entirely. Arabs were warned not to give evidence before the Commission, and as far as is known, have adhered to this decision. The task of the Commission is, therefore, rendered doubly difficult and it is difficult to see how the Arabs and Jews can be reconciled, since both refuse to alter their viewpoint in any way.

It would appear that the differences are fundamental and date from the pledges given to both races at the end of the Great War. Unless some alteration is made in the terms of the Mandate, it seems unlikely that compromise can be effected.

* * * * *

Interest in European affairs has centred chiefly on the civil war in Spain. After considerable initial success, the insurgents have been held up on the outskirts of Europe, Madrid, both by bad weather and by the strengthening of the Government forces.

Whilst the British Government has refused to accord belligerent rights to either side, both the German and Italian Governments have officially recognised General Franco's Government as being the only stable government in the country. In addition, Portugal has severed diplomatic relations with Spain. The British and French Governments recently approached Germany, Italy, Portugal and Russia with a view to ensuring strict renunciation of foreign intervention in Spain and a joint offer of mediation. Replies from the governments of all four countries seem satisfactory, but it is doubtful whether any real progress in this direction will be made.

In spite of the efforts of the Non-Intervention Committee and denials by the countries concerned, there seems to be little doubt

that both sides have received considerable unofficial help from outside in men and material. Whilst no final settlement of the struggle can be expected at an early date, it is to be hoped that Spain will not become the cockpit for a general clash between the rival ideals of Fascism and Marxism.

An important event which occurred earlier in the past quarter was a declaration of neutrality made by the King of the Belgians at the beginning of October. It was afterwards explained that Belgium intended to fulfil all her obligations, but the statement caused considerable nervousness in France. The latter country, as an immediate result of the declaration, decided to extend the Maginot line of fortifications northwards to the sea, in addition to the already projected extension southwards to cover the Swiss frontier.

There are grounds for speculation as to what Belgium's final attitude towards the proposed new Locarno Pact will be. Meanwhile the recent declaration by the French Foreign Minister that France would come to the aid of Britain with all her resources in the event of unprovoked aggression is a reassuring token of Anglo-French understanding.

* * * * *

In spite of the efforts of the Nanking Government to restore order in China, there have been various outbreaks in **China.** the country this year. These seem to have been prompted by Nationalist feeling on the subject of Japanese encroachments, not only in the past, but those which it is feared may take place in the future.

A difficult situation has arisen through a rebellion in Shensi Province in the North-West of China, and the seizure and detention by Marshal Chang Hsueh-Liang of Marshal Chiang Kai-Shek, who was paying a visit to the former.

For some years Marshal Chiang Kai-Shek has endeavoured to rescue China from the chaos into which she had fallen as the result of a long period of civil war and revolution, he has also up to the present refused to be drawn into open conflict with Japanese policy. It is probable that his elimination would plunge Nanking and the remainder of China back into the previous unhappy state of affairs. Not only that, but a successful rebellion against Nanking might have a harmful effect on Sino-Japanese relations; since it is

understood that Chang Hsueh-Liang demands active opposition to Japan, and is rumoured to be flirting with the Communists in China. Japan's concern for the outcome is shown by her foreign minister's statement that she would disapprove of any compromise between the Nanking Government and the rebels.

THE DEFENCE OF BURMA: TO-DAY AND AFTER SEPARATION

BY MAJOR T. R. HURST, 7TH GURKHA RIFLES

INTRODUCTION

The "Separation" of Burma, which was first suggested in 1884 to the then Chief Commissioner by the Rangoon Chamber of Commerce in the financial and general interests of the country, comes into force on 1st April, 1937.

There has been no official military announcement to indicate that there will be any major change after 1st April 1937 in the military forces at present (October 1936) in Burma. For which see Appendix "A."

From this one must conclude that, on 1st April 1937, things will more or less remain in *status quo*, except that Burma District will come under the War Office and will no longer be under Army Headquarters, India. After "Separation," Burma, being independent from India, must obviously bear the total cost of the Defence Services. This will involve annual payment to the War Office for British troops and to the Indian Government for any Indian Army troops, and at home for all her own forces. This latter will include full payment of the cost of the Burma Military Police, a large percentage of which cost at present comes from the central revenues of the Government of India. Burma will also presumably have to pay the Indian Government for the material assets belonging to the Central Government (*e.g.*, the military buildings and lands, military stores and military equipment), taken over as a going concern with the present military forces.

THE TASKS OF THE DEFENCE SERVICES

The Army in Burma and the Burma Military Police may be said to exist in future for—

- (a) defence of the country against external aggression, and
- (b) the maintenance of internal peace and tranquillity.

The task of defence against external aggression will be dealt with first. Fortunately for Burma, the problem is far simpler than it is for India. Up to date, defence has been in the hands of the Government of India and the Army in India found the garrison of Burma, and was itself a reserve for use in Burma if and

when required. Burma's accessibility by sea rendered its reinforcement an easy matter, and so the armed forces maintained in the country have been the absolute minimum required.

Please see map at end of article.

Figures in themselves convey little to most people, so a comparison between Burma and a few other countries, and provinces in India, is made in tabular form to give the reader some idea of the size of the country and of its population.

Province or country.	Area in thousands of square miles.	Population in millions.	Population per square mile.
Burma ..	233	14½	63
Punjab ..	136	28½	209
United Provinces ..	112	49½	442
Great Britain and Northern Ireland ..	95	46	485
Irish Free State ..	27	2·9	109
Burma Proper, i. e. home of Burmese people ..	122	10	82 (Burmese)

The reason for the paucity of population in Burma as a whole is largely due to the fact that only about 50 per cent of the land in the province is cultivable. The large tracts of uncultivable land are mountainous and/or covered with forests and jungle, and from the defence point of view, it is fortunate that the majority of this jungle and hilly country is on the frontier where it forms a complete military obstacle against invasion. Starting at the Bay of Bengal; on the west for 600 miles, there is a wide tract of densely wooded hills and jungle which separates Burma from Bengal, the Manipur State and Assam. Passage from India to Burma must be made by sea as there is no communication by road or rail, but this area is not impassable for pack transport. Burma has, of course, nothing to fear from India. In the north, Burma abuts on Chwanben (China District) for 200 miles. The frontier itself runs along a line of lofty peaks, 10,000 to 14,000 feet high. South of the frontier and round about Burma's most northern outpost Fort Hertz (150 miles by mule track, plus 700 miles by rail from Rangoon) is a vast unadministered and/or loosely administered area, including that known as "The Triangle" and "The Naga Hill" tracts. All this area is probably the most difficult country

in the world, and no invasion has ever threatened or is ever likely to threaten Burma from this direction.

Working down the eastern frontier, we come to the Chinese Province of Yunnan (550 miles of frontier); then French Indo-China (130 miles of frontier) then Siam (900 miles of frontier), and finally we come to the sea.

On the Chinese side, the nearest railhead is Yunnan Fu, from which rough cart tracks diverge towards our frontier, some 300 miles distant. The three most important and most northerly of these tracks lead to Myitkyina, Bhamo and Lashio respectively, 40 to 75 miles on our side of the frontier, and at each of which is situated the headquarters of a battalion of B.M.P. The gorges of the two great rivers the Mekong and the Salween, with ferries fit only for pack transport, have to be traversed, and the passes to be negotiated *en route* vary from 4,000 to 8,000 feet high. A fourth cart track leads towards the Southern Shan States and Taunggyi, 170 miles on our side of the frontier. Whereas the Chinese railhead is 300 miles from the frontier, Myitkyina and Lashio on our side are railheads, while Taunggyi and Bhamo are within 30 miles of the railway. Bhamo, moreover, is on the Irrawaddy and can be reached by river steamer from Rangoon *via* Mandalay.

To connect up the B.M.P. battalion headquarters at these places is obviously strategically important, but lateral communication between them by rail, road or river is at present conspicuous by its absence.

The frontier with Indo-China is the great unbridged river Mekong. There are no cart tracks worthy of the name leading across the Siamese frontier, and Siam has in the past been a very friendly neighbour.

There are no roads worthy of the name and absolutely no metalled roads leading across any part of the land frontiers; and speaking generally, the country on both sides of the frontier is so difficult that it is impossible for any large force to cross it without years spent in the development of communications. For a large modern army to operate in the area is quite impossible.

There have, of course, been numerous raids by armed bandits from China into Burma without (!!!) the knowledge of the Government of China. These naturally have had an adverse effect on the behaviour of, and our relations with, the tribesmen, such as the wild Was (head hunters) who inhabit a vast unadministered

area east of the river Salween. These raids have been small (20 to 100 men with modern rifles) and have been satisfactorily dealt with by the local B.M.P. In 1934, however, large B.M.P. reinforcements had to be sent to carry out the Wa operations, and in that year arose one of the periodical frontier disputes between Burma and China. In 1935, to settle the latter, a British-Chinese Boundary Commission was appointed to demarcate the frontier, and this necessitated an escort of regular troops and B.M.P. This escort is going out again this dry season, and it seems possible that opposition may be encountered in the unfriendly Wa country. This, fortunately, is not very serious as the tribesmen are completely unarmed, except for a number of flintlocks and muzzle-loaders.

It is significant that the Government of India have, in the past, left the entire duties of "Watch and Ward" of Burma's land frontier to the B.M.P. Fortunately, the tribesmen who inhabit most of the country on our side of the frontier are peaceful, docile, non-nomadic and almost completely unarmed, so that they are in no way comparable to our martial, truculent friends with modern rifles on the N.-W. Frontier of India.

As regards external aggression, the rôle of the Army has been, and will be, to reinforce the B.M.P. if and when they exhaust their own reserves, or Government think it necessary to employ regular troops.

The conclusion, therefore, is that for the Army in Burma, the problem of defence against external aggression is not a very serious or difficult one, since a serious armed collision on the land frontiers is almost beyond the bounds of possibility in the near future. Developments trans-frontier can be watched as regards friendly relations, armaments and development of communications; and on account of the time necessary for the latter, ample time will be available for us to take measures to counter any hostile developments.

As one of the accepted principles of Imperial Defence, it can be assumed that in the case of a serious emergency, such as war with a foreign power, when attacked by sea or invaded by land, Burma can expect, like any other member of the British Empire, to receive reinforcements from Imperial sources.

Fortunately for Burma, she is easily accessible by sea, and whether she can get the required reinforcements from India, Egypt, Singapore or Home, is for the respective Governments to decide.

In case of any serious invasion by land, ample warning and time can be given for these reinforcements to arrive from any source within the Empire for reasons given above.

When we turn to Internal Security we find that Burma once again is more fortunate than India.

The people of Burma are entirely different from the peoples of India, and compared with India, the homogeneity of Burma is perhaps its most striking characteristic. The Burman, being a Buddhist, recognises none of the social divisions of caste and custom erected by Brahminism. Further, there has been no aristocracy in Burma from early days apart from the late royal household, and class antagonism is notably absent.

Tolerance is the leading tenet of Buddhism and the Burmese, though remarkably proud of their race, have shown no intense racial antipathies. The Burmese have not been liable to sudden and fanatical outbursts, and Burma so far has been entirely free from any problem like the Hindu-Mohamedan problem in India.

On the other hand, there are other problems which must be taken into account. In particular, there is the fact that the Burman is impatient of normal civic discipline and prone to serious crime, particularly crimes of violence. Moreover, in the past, epidemics of dacoity have broken out in the province, and on occasions the country has been disturbed throughout its length by rebellion. The last rebellion was in 1930 and took two years to suppress. More than a brigade of troops had to be sent from India before the last armed band was captured or dispersed, and the last flame extinguished.

It is imperative, therefore, that sufficient forces should exist in the country to maintain Law and Order at all times, and to be prepared to deal with any outbreaks of dacoity and rebellion which may arise.

The Mandalay battalion B.M.P. and the two battalions of B.M.P. whose headquarters are in Rangoon, are the first reserve for the Civil Police but, owing to numerous detachments all over the country requiring reinforcement in emergency, they will have practically no concentrated mobile reserve left.

The rôle of the Army is to act as Internal Security Troops if and when required by the Civil Government. They will not normally be employed until the B.M.P. resources have been exhausted.

Burma will in future have no inherent right to call on India for reinforcements in case of internal trouble. It is therefore assumed that, after Separation, the Army in Burma must consist of first-class troops, and must in itself be sufficiently strong and have its own immediate reserves to enable it to meet the tasks it may be called upon to perform in Burma (subject to receiving reinforcement in the worst possible situation of invasion by a foreign power, combined with internal rebellion).

In the transition and Burmanization stages, rapid reinforcement from overseas may be necessary and schemes *must* be ready prepared in peace. Again, it is for the respective Governments to arrange, and for the General Staff to draw up, plans as soon as they know what troops can be made available. It will obviously be advantageous to Burma if first reinforcements can come from India and/or arrive by air from the Egyptian-Palestine Zone or from Singapore.

FORCES AVAILABLE

Let us examine the forces which are available to-day (October 1936) to carry out the above tasks.

They consist of the Civil Police, the Burma Military Police and the Army in Burma.

In Appendix B is given the organisation, composition, location and rôle of the B.M.P. battalions, and a note on the Civil Police is added.

It is not proposed to deal with the B.M.P. further, except to emphasise what an extremely efficient force they have proved themselves in the past (*i.e.*, since first raised in 1885) and are to-day, to deal with the task they are called upon to perform, and to remark on the future of the Force. They undoubtedly provide the best "value for money" in the way of "Watch and Ward" and security that could possibly be obtained. For financial reasons, combined with their peculiar loose organisation, varying strength of battalions, and allotment to areas, they can never become part of the Army in Burma or be relieved by Burma Rifles Battalions.

The Deputy Inspector-General of Military Police (Colonel I.A.) is at present in executive command of all 10 battalions of the B.M.P. and is responsible to the Inspector-General, Civil and Military Police, Burma. It is probable that after separation—

- (a) The two Rangoon battalions and the Mandalay battalion, to be known as the Garrison Battalions, will be directly under the I.G.P., who will remain responsible to the Ministers for Law and Order.

- (b) The remaining six frontier battalions and the reserve battalion will probably pass from the control of the I.G.P., and will be under the D.I.G., B.M.P., who will be responsible to H.E. the Governor direct.

Though the duties of the frontier battalions are mainly military, they are a Civil Force and it is neither feasible from the financial point of view, nor desirable from the practical point of view, to make them any more military in nature. Their command cannot pass to the army in peace time, as it is essential they remain at the disposal of Civil Officers in the frontier districts to provide columns without delay, to repel raiding parties from across the border, to take steps to suppress tribal risings, to furnish guards and escorts and/or to maintain Law and Order. The system is that the Civil Officer consults the outpost or battalion commander, and between them they make a plan to meet the immediate situation. In theory, this system is open to objections but in practice, which means proof, it has worked without a hitch on innumerable occasions. If the B.M.P. became part of the army, it would be necessary every time they were required, to refer back to higher authority, Civil and Military. The factor of time and space and the undeveloped stage which administration on the frontier has reached, make such action inconceivable and incompatible with efficiency.

It seems to the writer far more likely that, in the not too distant future, say 1945, the Army in Burma (less the British battalions) will become more like the Military Police. The fact that the Governor is going to have two advisers on what are really military matters, is open to gravest objection and some better solution is obviously desirable. As it is, one adviser, the G.O.C., whose headquarters are permanently in Maymyo, 450 miles from Rangoon, will have two British battalions and four or five battalions of Burma Rifles, plus A.F.I., etc., under his command; while the D.I.G., B.M.P., the second adviser, whose headquarters are permanently in Rangoon, will have at his disposal seven B.M.P. battalions containing far more men but dispersed and localised except for the Reserve Battalion.

When a situation on any part of the frontier gets to a stage when the D.I.G., B.M.P., is unable to deal with the situation with his own resources, then it would appear that the whole situation

must be handed over to the G.O.C., together with command of the B.M.P. forces in the area.

So that this can be done quickly and efficiently, it is essential that in peace the G.O.C. and his staff have a detailed knowledge of the armament and capabilities of the B.M.P. and of conditions on the frontier, particularly as regards lines of communication. This knowledge can only be obtained by inspections of B.M.P. units and areas by the G.O.C. in peace time and a very close liaison with the D.I.G., B.M.P., at all times.

Except for this vexed question of higher command, no great change is expected in the B.M.P. after Separation. They will continue to be officered by officers seconded from the Indian Army, but it is possible the B.M.P. may be opened to British Service Officers. The class composition will remain the same in the Frontier Battalions, *i.e.*, predominantly Indian with a proportion of Chins, Kachins and Karens. It is probable that more Burmese will be enlisted in the Garrison Battalions at Rangoon and Mandalay.

The Army forces at present in Burma are given in detail in Appendix A. They are organised under H.Q. Burma Independent District at Maymyo and H.Q. Rangoon Brigade Area at Mingaladon (12 miles from Rangoon).

In the Wa operations of 1934, carried out by the B.M.P., regular army columns were moved to the edge of the area in preparation for action, but their employment was not found necessary.

To form part of the Boundary Commission Escort in 1935-36, one Company Burma Rifles, two rifle platoons and one M.G. Section "The Buffs" and one Mountain Battery gun were provided and a detachment of Indian Divisional Signals came from India. Two Companies Burma Rifles and one mountain gun were in reserve on the L. of C. At the conclusion of this escort duty, two Companies Burma Rifles carried out a small punitive expedition against hostile wild Was.

The second and perhaps more normal rôle of the Army is to form a reserve for Internal Security duties, *i.e.*, for use when the full resources of the Civil and Military Police have been unable to cope with the situation. The Army has not been "called out in aid of the Civil Power" often in the past 30 years, but in the Rebellion of 1930, as already stated, the Army in Burma was used

up and more than a Brigade had to come from India as reinforcements before the Rebellion was finally crushed.

Speaking generally, therefore, it seems that the Army has been sufficiently strong in the past. If the units are efficient, the same strength *might* be sufficient for the future.

One can learn from the past, but it does not mean that one can rely entirely on experiences in the past to form conclusions on which to base one's calculations for the future. To do so in this case would be most unsound owing to a change in temperament of the Burmese people.

THE TASK OF INTERNAL SECURITY IN THE FUTURE

In the Burma Census Report of 1901, one reads: "The Burman, as we know him, is essentially a non-migratory, unbusinesslike, irresponsible individual, incapable of sustained effort and content with what can be gained by a minimum of toil." That was in the good old days when land was plentiful and there was little difficulty in making a living, so the Burman did not see the force of working a whole day if he could get what he wanted by working half a day. Hence the Burman left commerce and industrial life and labour, other than agricultural, to the Indian and the Chinese. The Burman of to-day has been changed by the force of natural circumstances and is now quite different. Hence a note of warning is necessary. Gangs of Burmese coolies can be seen any day in Rangoon, loading and unloading vessels in the docks. They can also be seen in the various timber and rice mills throughout the country. The Burman is up against the pressure of a rapidly increasing population and the fact that the supply of cultivable land is practically exhausted (unless you include that which can be developed by a heavy expenditure of capital, unavailable for economic reasons). The Burman is now educated and has become politically-minded, and is led to expect and demand a higher standard of living. The political cry was for "a Separated Burma" and now that Separation is fixed, "Burma for the Burmans" is the tone of the native press. Burmese Trade Unions are beginning to organise labour, and recently there was a demand for 100 per cent. Burmese labour in the docks and under the Rangoon Corporation. Should these demands ever be pressed, communal feelings will be incensed. In the past year, communal relations were very sensitive to changes in political temperature,

and every contract made by public bodies or Government now contains a stipulation as to employing Burmese labourers.

In 1934, for the first time in the history of Burma, there was serious communal trouble necessitating the despatch of large B.M.P. reinforcements to Akyab.

In the future, a clash seems almost certain between the Burmese agriculturists and the Indian landlords and Chettyars (who own or hold mortgages on more than half the land in the province) and/or between Burmese labourers and the million odd Indian and Chinese immigrants employed as labourers.

The influence of the Buddhist religion and the strength of the parental tie were, in the past, factors in making Burma a peaceful country. The waning of these influences, combined with the spread of education and the influence of the native press and propaganda, the existence of secret cults and societies, and the influence of world and political affairs will undoubtedly have a disturbing influence on the course of future events in Burma.

Internal riots, communal trouble and armed rebellion against Government seem, to the writer, to be more liable to flare up in the future and will probably necessitate the more frequent calling out of troops in aid of the Civil Power.

The Army action in the rôle it will be called upon to perform is more likely to approximate to the normal one of the B.M.P. or to that adopted by the Army itself in the Burma and Moplah rebellions, *i.e.*, actions in columns. To employ the Army may entail extra expenditure of civil funds, but it is considered that any reluctance or hesitation to call it in on that account will indubitably lead to more crime, to a general worsening of the situation and the necessity for measures on a larger scale, and eventually to greater destruction of property and to greater loss of life on both sides.

Judging by events in the last few years in India in general and in Bengal in particular, it would appear that the Civil Authorities have a better appreciation of the value of the Military machine and are more likely to call for its assistance in future.

Since the Great War (excluding Rebellion 1930-32), there have always been two Burma Rifle battalions in Burma and in addition, sometimes one and sometimes two Indian battalions. Considering that the Indian battalions are replaced by untried

Burma Rifle battalions, it seems that, based on past requirements, there should be four Burma Rifle battalions in future.

However, when we remember the probable increased demand for troops in future, and the fact that the Army in India is no longer a reserve in the sense that it was before Separation, it would appear necessary to have five Active Burma Rifle battalions in future.

ARMY CHANGES ANNOUNCED OR ANTICIPATED

Up to date, the following decisions as to changes in the Army after Separation have been made known:

- (a) The Burma Rifles (now part of the Indian Army) will become part of the Burma Defence Force. They will be officered by British officers seconded for four or five years from the British and Indian Armies and on special increased rates of pay. All officers now in the Burma Rifles will be permanently posted to Indian Army battalions, but will remain seconded with Burma Rifles for some years.
- (b) It is understood that schemes are already afoot for the formation of an extra (*i.e.* fourth) Active Battalion Burma Rifles out of the existing Training Battalion and the raising of a Burma Sapper and Miner Company, but details have not been made known and orders have not yet been issued. As regards the possible return to India of the Indian Sapper and Miner Company, the programme of reliefs shows the present Company at Mandalay is being relieved by another Company from Bangalore next spring. It is possible that a fifth battalion of Burma Rifles may be raised a year or two after Separation, and its class composition forms an interesting problem.
- (c) It has been decided to abolish the Training Battalion system for the Burma Rifles and to adopt the Training Company system. This is the system in the Gurkha Rifles regiments of the Indian Army, whereby each battalion has its own Training Company at its own regimental centre and trains its own recruits.
- (d) The two British Infantry Battalions will remain.

- (e) Everything points to the conclusion that the Indian Mountain Battery at Maymyo is to remain indefinitely, also the R.I.A.S.C. Mule Company. There has been no suggestion that it may be necessary or advisable to change the location of or reorganise headquarters of Formations (*i.e.*, District Headquarters and Brigade Area) and nothing whatever has been said as to any rearmament of, or any new equipment for, the British Infantry or Burma Rifles battalions.

APPENDIX "A"

STATEMENT SHOWING THE DEFENCE SERVICES IN BURMA

(SEPTEMBER 1936)

Regular Army

	Location.	Remarks.
H.Q. Burma Independent District	Maymyo ..	..
H.Q. Rangoon Brigade Area	.. Mingaladon ..	..
(a) One British Infantry Battalion	.. Mingaladon ..	One Company at Rangoon—12 miles distant.
(b) One British Infantry Battalion	.. .. Maymyo ..	One Company at Mandalay—40 miles distant.
(c) One Indian Mountain Battery	Maymyo ..	A unit of the "Army in India" normal organization.
(d) One Field Company, Sappers and Miners	.. Mandalay ..	.. Ditto .. Class composition—Madras.
(e) Three Active Battalions, Burma Rifles (organization same as Indian Infantry Battalions)	.. Maymyo ..	Class composition authorised April 1936 :—
	Mandalay ..	50 per cent. Karens, 25 per cent. Chins and 25 per cent. Kachins in each
	Mingaladon ..	Battalion. It is understood that each is to have its own training company after Separation and to train its own recruits as Gurkha battalions of the Indian Army do now.
(f) One Training Battalion, Burma Rifles	.. Maymyo ..	Earmarked for conversion into an Active Battalion as soon as possible after Separation. Connect remarks in serial (e). No orders have yet been issued.

TERRITORIAL FORCE

(g) One Territorial Battalion, Burma Rifles	.. Mandalay ..	Class composition—Burmese and Karens.
(h) One University Training Corps	.. Rangoon University ..	Open to all University students. Actual class composition—90 per cent. Burmese.

(i) Principal Administrative Services—

Rangoon Arsenal	.. Personnel drawn from I.A.O.C.
Two British Military Hospitals	.. Officers and other ranks R.A.M.C., Assistant Surgeons of I.M.D. and Lady Nurses of Q.A.I.M.N.S.
Two Indian Military Hospitals	.. Officers of I.M.S., other ranks of I.H.C., Sub-Assistant Surgeons of I.M.D.
One British Wing of I.M.H.	
One Indian Wing of B.M.H.	
One Mule Transport Company R.I.A.S.C.	
One Supply Company, R.I.A.S.C.	

AUXILIARY FORCE, INDIA

Unit.	Location.	Remarks.
(j) III (Rangoon) Field Brigade, R.A., A.F. (I) ..	Rangoon	.. One Field Battery; one Fortress Company, R. E.; one W/T Signal Section.
(k) Rangoon Battalion, A. F.(I)	Rangoon	.. Small detachments at Akyab and Syriam.
(l) Tenasserim Battalion, A.F.(I)	Moulmein	.. Infantry and Light Motor Patrol.
(m) Burma Railways Battalion, A. F. (I) ..	Rangoon	.. Detachments at principal railway stations on 1,500 miles of railway.
(n) Upper Burma Battalion, A. F. (I) ..	Mandalay	.. ..

APPENDIX "B"

THE BURMA MILITARY POLICE

This is a civilian provincial Force, with a sanctioned strength of approximately 12,000 under the Local Government and in practice at the disposal of the local Civil officers in the districts.

The B.M.P. are organised as follows:

Six Frontier Battalions *i.e.*—
 Chin Hills Battalion .. Falam.
 Eastern Battalion .. Myitkyina.
 Western Battalion .. Myitkyina.
 Bhamo Battalion .. Bhamo.
 Northern Shan States
 Battalion .. Lashio.
 Southern Shan States
 Battalion .. Taunggyi.

Their duties are mainly military.

The B.M.P. carry out all the duties of "Watch and Ward" on a frontier 2,000 miles long. They have detachments on all passes leading across the frontier to repel raiders who occasionally cross into our territory. They prevent opium smuggling, maintain law and order amongst the non-Burman tribes who inhabit the semi-administered and unadministered areas on our side of the frontier and have detachments in all districts. Some outposts, *e.g.* Fort Hertz, are so far distant from battalion headquarters that they take months to relieve. The composition of the B.M.P. used to be entirely Indians and Gurkhas, but a proportion of Chins and Kachins are now being enlisted. Each battalion trains its own recruits who are brought from India by B.M.P. furlough and leave men.

Battalions have an average of four British officers who are seconded from the Indian Army. Battalions vary in strength according to the task and area for which they are responsible—some have up to 1,500 men, and temporary increases in strength are common, *e.g.* for Wa operations.

Reserve Battalion .. Pyawbwe.

Acts primarily as reserve to Frontier Battalions, and secondly as reserve to the Rangoon and Mandalay Battalions and to the Railway Police.

Two Rangoon Battalions .. Rangoon.
 Mandalay .. Mandalay.

Have detachments of 50 to 100 men in every district in Lower Burma. Duties

approximate more to Civil Police than to Military, but they are armed with military rifles. They carry out routine duties of Treasury guards and escorts. They are the first reserve for the

Civil Police and for the Rangoon City Police. They are recruiting Karens in increasing numbers, but 50 per cent. of the men are still Indians. The Mandalay battalion now has about 300 Burmese, but it is unofficially reported that they are proving unsatisfactory.

A proportion of the Mandalay battalion is mounted for work in the Dry zone.

Note—All arms and most of the equipment for the B.M.P. are supplied by the Rangoon Arsenal. Rations and clothing are provided by the Police Supplies Department which purchases locally from contractors and manufacturers, or, where cheaper, battalion commanders are empowered to make local contracts and take direct delivery of supplies.

THE RANGOON POLICE

The Rangoon Police maintain Law and Order in Rangoon City under a Police Commissioner, who is directly responsible to the Ministers of Local Government.

The bulk of the men are Indians but there are now a few Burmese.

The Force, which is 1,500 strong, has a number of British sergeants and police officers. A very high standard of work and discipline is insisted upon. The men are very well turned out and are the best type of Sikh, Punjabi-Mussalman, etc., and several are ex-sepoys or ex-sowars.

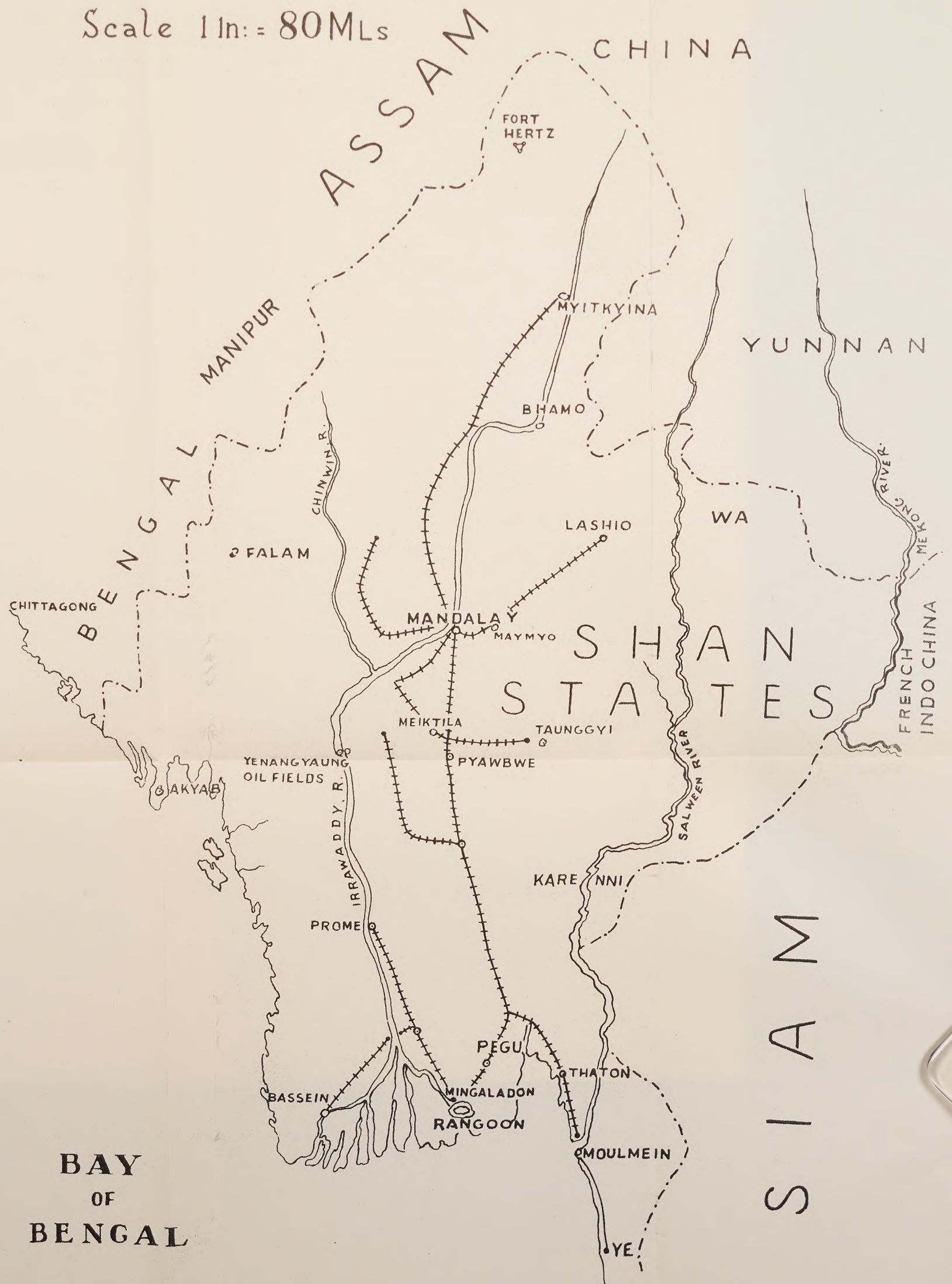
THE CIVIL POLICE

The Burma Civil Police total some 13,000 men under three D.I.G.s responsible to the I.G.P., Burma. They are recruited locally by the District Superintendents and are 95 per cent. Burmese. They are distributed throughout the country on normal peace-time police duties in the towns and rural areas, and have no large reserves on whom they could call in case of serious dacoities, riots and disturbances. A proportion of the Burma Civil Police in each district is armed but, in the main, the Force is unarmed.

The Railway Police, 500 strong, and C.I.D., are organised separately under a fourth D.I.G.

MAP OF BURMA

Scale 1 in. = 80 Mls



THE HONOURABLE EAST INDIA COMPANY AND VOLUNTEERS

BY C. A. SWAINSON

"Under arms! . . . Lord love thee! . . . I called to consult my lawyer. He was clothed in dragoon's dress, belted and casqued and about to mount a charger which his writing clerk, habited as a sharp-shooter, walked to and fro before his door. I went to scold my agent for having sent me to advise with a madman; he had stuck into his head the plume which, in more sober days, he wielded between his fingers, and figured as an artillery officer. My mercer had his spontoon in his hand, as if he measured his cloth by that implement instead of a legitimate yard. The banker's clerk, who was directed to sum my cash account, blundered it three times, being disordered by his military tellings-off at the morning drill. I had recourse to a physician, but he was also practising a more wholesale method of slaughter than that which his profession had been at all times supposed to open to him."

The foregoing quotation from the *Antiquary* has more than an element of humorous exaggeration, but it gives a not inapt idea of the warlike spirit with which the civilian population of Great Britain met the threats of French invasion in the last decade of the eighteenth and the opening years of the nineteenth centuries. Young and old, rich and poor, pressed eagerly into the ranks of the volunteer army, even the most peaceful of men putting on for a time the panoply of war.

At Deal, the visitor might see the long, lean figure of William Pitt drilling the Cinque Ports Corps; away in far Warwickshire the aged Warren Hastings rode over every day to watch the evolutions of the village warriors.

The East India Company was not slow to join in the national movement. Quite apart from patriotic motives, it was difficult for the Directors to contemplate with equanimity the possibility of London being denuded of soldiers in the event of an invasion, and their warehouses being thus left to the mercy of a mob.

On the 24th August 1796, therefore, the Court of Directors approved a plan for raising two regiments of volunteers, each to consist of 500 rank and file, 20 drummers, 30 sergeants and about 35 superior officers. The field officers were to be selected from the ranks of the Directors; the commissioned officers from the East

India House staff, and the non-commissioned officers and privates from the labourers employed in the Company's warehouses. The force was to be armed by the Government and clothed by the Company; no pay was to be given except to the lower ranks, and then only in the event of their being called up for duty, when they were to receive an extra shilling a day. A fortnight later the list of officers was approved, with the Chairman, David Scott, as the colonel of the 1st regiment, and the Deputy Chairman, Hugh Inglis, as the colonel of the 2nd. Evidently there had been a rush of volunteers for the other posts, for a proposal was mooted for forming the unsuccessful candidates into an independent company of cadets.

A handsome uniform was provided, consisting of a scarlet coat, turned up with blue; buff waistcoat and breeches, and a large busby, ornamented with a plume. That no money was spared is shewn by the fact that by Christmas 1797 over £20,000 had been spent on the corps. Authority to charge the cost of the force against the Company's funds had been given by an Act of Parliament on the 6th June 1797 (37, Geo. III, C. 74).

By the terms of enlistment, the members of the two regiments were not to be required to serve outside London or its environs but, in April 1798, they volunteered to march under the command of their own officers wherever it might be deemed necessary for the safety of His Majesty's person and the defence of the country. A month later this offer was accepted by the Government. To take their place, should they be called on to quit the capital, it was decided to arm and drill a further number of men of the Company's warehouses. Thus was formed the 3rd Regiment of the East India Volunteers, with John Roberts, a former Chairman, as Commandant. About the same time the whole corps received the title of Royal East India Volunteers. A body of volunteer artillery seems to have been added before long, but the actual date of its formation is not known.

Two water-colours by Henry Matthews relating to these regiments still hang in the Military Committee Room at the India Office. One of these depicts the presentation of colours to the 2nd Regiment on 27th July 1797, a ceremony thus described in the *Morning Chronicle* of the following day: "Yesterday noon, the 2nd Regiment of East India Volunteers were reviewed on Lord's cricket ground, under the command of Colonel Inglis, to receive their colours from the fair hands of Lady Jane Dundas. A suitable

exhortation was delivered by the chaplain of the regiment, and after the ceremony the officers adjourned to the London Tavern to partake of an elegant entertainment provided by their Colonel, at which were present, with the India Directors, the Earl of Mornington, Mr. Pitt, Mr. Dundas, Mr. Anstruther and a number of other noblemen."

In two years more the war clouds lifted and the long desired peace came in sight. A preliminary treaty was signed in October 1801, amid general rejoicings. Only a portion of the East India Volunteers, however, was disbanded as it was felt that a lasting peace was not assured.

The Times of 16th August 1802, contains the following paragraph which shows that the training of the brigade was still being vigorously carried on: "Yesterday the 3rd Regiment of the Royal East India Volunteers practised firing with ball at Highgate. A figure of Bonaparte, admirably painted by Captain Barnard, was placed opposite to the Grenadier Company and hardly a part of the hero escaped without a palpable hit."

War broke out again in May 1803, and in the following month the artillery company was re-established and the three regiments of infantry were brought up to their former strength. Various activities were undertaken during the next few years and, in August 1805, while Napoleon was waiting at Boulogne for Villeneuve's fleet to cover his descent on the English coast, the 2nd regiment garrisoned Maidstone, in order to set free an equivalent body of regular troops. It was also decided that the other two regiments should be lent to the Government in turn for limited periods, with a view to their employment in a similar manner.

The brigade continued embodied all through the Peninsula war and until the meeting of the Congress of Vienna in September 1814. Then, as peace seemed firmly established and as the expense of the corps, which had lately averaged over £20,000 a year, was proving very burdensome, it was decided to disband it.

Small gratuities were given to the N.C.O.s and men, while the brigade-major and each of the adjutants received a hundred guineas for the purchase of a piece of plate. At the same time the Prince Regent formally thanked the officers and men for their public-spirited services.

How many I.C.S. men in India to-day, one wonders, are aware of this little known chapter in the warlike history of the predecessors of the present India Office.

MACHINE GUN BATTALIONS IN THE INDIAN ARMY: TO BE OR NOT TO BE

BY WUH SAWAL HAI

Introduction

It is surprising that so little has been written in journals on this question. One would have thought that it would have been one of the most debated questions in the Indian Army, and that numbers of officers would have wanted to air their views on the subject. My experience has been that, though not much discussed, most officers have formed an opinion on the question. The variety of these opinions is amazing. It is the purpose of this article to discuss some of the pros and cons of the introduction of M. G. battalions into the Indian Army and to consider alternatives.

The Effect of the Introduction of British M. G. Battalions

Before considering the pros and cons one must have quite clearly before one the organisation into which these Indian M. G. battalions would be introduced. In particular the effect of the forthcoming introduction of British M. G. battalions and British rifle battalions into the Army in India must be considered.

First, it should be noted that there are twenty-two Infantry Brigades in the Army in India. The present organisation of every brigade, on paper, is one British battalion and three Indian battalions. Secondly, under the reorganisation of the British Army there will, in the near future, be eight British M. G. battalions in India, the remainder being rifle battalions.

What will be the result of this reorganisation? It would appear almost certain that these M. G. battalions must be included in the Field Army or Covering Troops. There are two main reasons for this. In the first place an M. G. battalion is not really a suitable unit for Internal Security duties. It can certainly produce a considerable number of riflemen, but not nearly so many as will the new rifle battalion; while its M. G.s will normally be entirely wasted. It would not, therefore, be economical to use them for Internal Security. In the second place M. G. battalions will require special barracks as they will have fewer men and more animals. They will, therefore, have to have a relief circle of their own. Rifle battalions will not be able to relieve them. In war

all M.G. battalions will be required in the Field Army or Covering Troops. If any are used for Internal Security in peace, the process of replacing them on mobilisation with rifle battalions will be very difficult owing to the barrack question.

It may, therefore, be assumed that of the twenty-two brigades of the Army in India eight will have British M. G. battalions and fourteen British rifle battalions. The logical conclusion would appear to be that fourteen battalions of the Indian Army must be turned into M. G. battalions and the remainder into rifle battalions. Every brigade would then have a similar organisation which would correspond to that at home. This has numerous advantages as regards simplicity of organisation, administration and employment in the field. There are, however, several disadvantages.

Disadvantages of the Logical Solution

In the first place there is the fact that the M. G. battalion organisation has been evolved for a European war. It is the organisation best suited for the British Army at home, and that is now engaged in preparing for a "highly civilised" war. Conditions in India are different and an organisation, which is suitable for a European war, is not necessarily the best for India. In Frontier warfare the brigading of M. G.s is the exception. Battalions frequently work more or less on their own, and very close co-operation between M.G. companies and rifle companies is required. Will the new organisation ensure this, particularly when Indian M.G.s are supporting British rifles and *vice versa*?

Again, in peace there are, along the Frontier, a number of single battalion posts and some company posts. These are practically under field service conditions and may be called on to take active measures, of defence at any rate, at very short notice. M.G.s in most of these posts are probably essential. If M. G. battalions are introduced, some of them will have to be split up in order to provide M. G.s for those posts. Will not this splitting up be very detrimental to the training of the M.G. battalion?

Thirdly, there would be the question of recruiting for Indian M.G. battalions. M.G. personnel require a standard of intelligence and physique above the average of the Indian sepoy. Anyone who has had to deal with the question of turn-over of M.G. personnel will bear this out. Assuming that, if M.G. battalions are introduced, it will be done by "machine-gunizing" certain groups, it would be

necessary to have a higher standard for recruits for those groups. This would increase the difficulties of recruiting very considerably, especially in war, and it is already difficult enough. Moreover, it is hard to judge the intelligence of a recruit, who comes from his village with little or no education at the age of eighteen. It would also be very detrimental to rifle groups, for the general standard of their recruits would undoubtedly fall.

Lastly, there is the question of how those battalions, which do not form part of a brigade, should be organised. There are 117 Indian battalions (excluding the Burma Rifles). Of these 66 are in brigades. The balance of 51 are engaged on a variety of tasks, some of which require a few M.G.s but not an M.G. battalion. In time of war they may have to be replaced and formed into brigades. A proportion, one quarter perhaps, would therefore have to be M.G. battalions and the remainder rifle battalions. The British Army could not be relied on to produce the necessary M.G. battalions to complete brigades if all 51 were rifle battalions. If, however, some were M.G. battalions their allotment for peace duties would be very difficult. To leave them as they are would mean having three types of Indian battalion, which would not be interchangeable and would lead to all sorts of difficulties.

EDITOR'S NOTE.—We do not altogether agree with the author's total number of battalions.

Disadvantages not so great as they appear

There are probably no problems of this type which have a perfect solution. Any and every solution will have certain disadvantages as compared with others, while the same disadvantage may be common to several. This is very true of the question under consideration. The real problem is to decide which of several solutions has, on balance, the greatest advantages and the least disadvantages.

The disadvantages enumerated in the last paragraph are not so great as might at first sight appear to be the case. As regards the first, loss of co-operation should not be so very serious if adequate measures are taken to guard against it. Where all battalions of a brigade are together, T.E.W.T.s, attachments and special consideration of the problem during collective training should be sufficient to ensure fairly close co-operation. Where battalions are separated, the splitting up of the M.G. battalion amongst the single battalion posts should again ensure close co-

operation. The disadvantage of splitting up M.G. battalions could be overcome very largely in two ways. In the first place they could be organised on the lines of a Field Artillery Brigade, so that each company is practically self-contained. This need only be done for Indian M.G. battalions, for it should be possible for the allotment of British M.G. battalions to be so arranged that it would not be necessary to split them up. In the second place the M.G. battalion could, in nearly all cases, be concentrated for battalion and brigade training.

It should also be possible to deal with the recruiting problem without introducing a higher standard for M.G. groups. About 30 per cent. of M.G. battalion personnel will be mule leaders; though these must be able to fire the gun, it is not necessary for them to have the same standard of intelligence as the gun numbers; the average recruit should be quite up to that work. Secondly, one of the chief reasons for the present difficulty which infantry battalions have in finding machine-gunners, is that they have to be trained up to the required standard in three years and are then turned over. The standard of intelligence required to enable this to be done must obviously be higher than when a man remains a machine-gunner all his service. A slightly higher standard could be attained by increasing the percentage of annual discharges allowed to M.G. Training Battalions from 10 per cent. to 20 per cent. In war the difficulty of finding recruits would be largely offset by the fact that there would be a larger number of reservists to draw upon than is the case at present; moreover, these reservists would be better trained and their additional training would be easier to carry out. The training of new recruits would also be easier.

The difficulty in regard to the peace allotment of the unbrigaded battalions is probably the hardest to overcome. It may not be so difficult as it appears, however. Its solution would require a detailed consideration of the duties of each of these battalions, which cannot be attempted here.

There may be other disadvantages which have not been mentioned, but those dealt with are probably the greatest. It is not considered that they are so great as to warrant this solution of the problem being turned down unless some better solution can be found. That is a real truism, but it is one which is apt to be overlooked by critics of any new arrangement.

Other Solutions

There can hardly be any question but that some form of reorganisation must be carried out. The writer has heard it suggested, however, that nothing should be done, and that the desire for reorganisation merely springs from a mentality which must have uniformity regardless of any other aspects of the case. A moment's consideration of the real facts of the problem shows this suggestion to be quite impracticable. It would result in eight infantry brigades having one British M.G. battalion and three Indian battalions, organised as at present; that is to say that each brigade would have nine rifle companies and five or six M. G. Companies; they would thus be hopelessly over machine-gunned. The correct proportion is 4 to 1; whereas this gives a proportion of about $2\frac{1}{2}$ to 1. The remaining fourteen brigades would have one British rifle battalion and three Indian battalions; that is to say, each of these brigades would have thirteen rifle companies and only three M. G. companies, which is a proportion of rather less than 4 to 1. They would, therefore, be rather under machine-gunned, particularly as Indian M. G. companies have only two platoons. Brigade groups, which are such a feature of Frontier warfare, would thus probably find it hard to function, particularly those with British M. G. battalions. Those with British rifle battalions might be better off. This depends on the proportion of M.G.s which a brigade should have. The British M. G. battalion is, it is believed, now to be organised with only two M. G. companies. If this is the case, then a brigade with six M. G. platoons is about right.

There are thus two factors on which any new organisation must be based. First, Indian battalions brigaded with a British M. G. battalion must become rifle battalions. Secondly, there is the question of the M. G. strength required by an Indian brigade. What is this? That is a problem which is too large to be dealt with here. If six platoons are to be considered sufficient, then the three Indian battalions of a brigade with a British rifle battalion can supply them and the problem is simplified. If nine platoons are required, then three additional platoons must be produced. For the purpose of what follows it will be assumed that nine platoons are required, for that provides the more difficult problem.

There is an alternative solution which appears to have several advantages over that which has been called the logical solution. It is suggested that eight brigades could be organised with one

British M. G. battalion and three Indian rifle battalions and the remaining fourteen with one British rifle battalion and three Indian battalions each. These Indian battalions would be organised as at present, except that they would have three M. G. platoons instead of two; the lack of an M. G. company in the British battalion would thus be made up, so far as the total armament of the brigade was concerned. The distribution of the eight brigades with British M. G. battalions would be two for Covering Troops and six for the Field Army. There would thus be two Field Army divisions with this type of brigade and two with the other.

There would then be three alternative methods of organising the fifty-one unbrigaded battalions. The first would be to keep them all as mixed battalions (*i.e.*, as they are now with an additional M. G. platoon). The second would be to have them in the same proportion as the brigaded battalions, which is approximately two mixed to one rifle. The third would be to have them in the proportion of three mixed to one rifle. This would enable Indian brigades to be formed if required; while if British battalions came out, normal brigades could be formed, whichever type the British battalions happened to be. This method will be adopted in the following pages:

The Alternative and the Logical Solutions Compared

There is one disadvantage common to both solutions. That is the danger of loss of co-operation. In both the extent of the danger will be the same for brigades with a British M. G. battalion. In the other type of brigade under the alternative solution there will be no danger so far as Indian battalions are concerned, but with the British battalions the danger may be rather greater than under the logical solution. It must be remembered, however, that in peace several British battalions are not with their brigades, so that in their case also the danger would be about equal under both solutions. It would appear, therefore, that, on balance, so far as the question of co-operation is concerned, the alternative solution is the better.

A possible disadvantage which may be raised against the alternative solution is that it entails different types of units and formations, which will seriously increase administrative difficulties. There will be two types of infantry units but so also will there be under the logical solution. There will also be two types of brigades. These, however, will be largely segregated in different

divisions, which would considerably reduce this disadvantage. Moreover, under the logical solution there will also be two types of brigade, for some will have British M. G. battalions and some British rifle battalions. That will not be a big difference admittedly, but it will exist. There will also be two types of division, in that they will consist of different types of brigades. That difference will not be very great, and should not affect administration outside the division.

Three disadvantages of the logical solution are overcome by the alternative one. They are the difficulty of providing single battalion posts with M. G.s, the recruiting difficulty and the problem regarding the peace distribution of the fifty-one unbrigaded battalions. It would not be necessary to put Indian rifle battalions into single battalion posts, and British battalions are only on their own when carrying out Internal Security duties, for which M. G.s are not required. The recruiting difficulty would be no greater than it is now, though Indian battalions would find it harder to find personnel for three M. G. platoons instead of two. This could be overcome by not demanding such a high standard for mule leaders. Of the fifty-one unbrigaded battalions, only twelve would be really different from the present Indian battalion; they would be the twelve rifle battalions and they could be allotted to Internal Security; on which duty most of these unbrigaded battalions are engaged.

Some Other Points

There are two other points which must be considered with regard to this problem. First, there is the question of the increasing complexity of infantry battalions and the resulting difficulties of peace training and control in war. At present in the Indian Army these are not very great, and they are not alone sufficient cause for creating separate M. G. battalions. If, however, the armament of infantry battalions is to be increased by the introduction of mortars, anti-tank weapons and a larger number of light automatics, then it is considered that the resulting difficulties in training, control and in finding the necessary personnel will make the formation of Indian M. G. battalions essential.

Secondly, there is the all-important question of finance which has not as yet been touched upon. In order to arrive at a true estimate of the financial effect of these two schemes a very detailed analysis would have to be made. The following table gives a

rough comparison between the present organisation, the "logical" solution and the "alternative" solution.

Table Showing Total Number of Rifle Companies and M. G. Platoons under the Present, Logical and Alternative

Organisations respectively.

	<i>Rifle Companies.</i>	<i>M. G. Platoons.</i>
<i>Present Organisation—</i>		
117 Mixed Battalions, each three rifle companies and two M.G. platoons ...	351	234
<i>Logical Organisation—</i>		
(a) 24 Rifle Battalions brigaded with eight British M.G. Battalions in 8 brigades, 4 companies per Battalion ...	96	...
(b) 28 Rifle Battalions brigaded with 14 British Rifle Battalions and 14 Indian M.G. Battalions. 4 companies per Battalion ...	112	...
(c) 39 Unbrigaded Rifle Battalions (<i>i.e.</i> , $\frac{3}{4}$ of 51) ...	156	...
(d) 14 M.G. Battalions as in (b) above, each with 3 companies of 3 platoons ...	...	126
(e) 12 Unbrigaded Battalions, <i>i.e.</i> , $\frac{1}{4}$ of 51 ...	...	108
Total of Logical Organisation ...	364	234
<i>Alternative Organisation—</i>		
(a) 24 Rifle Battalions brigaded with eight British M.G. Battalions ...	96	...
(b) 12 Unbrigaded Rifle Battalions ...	48	...
(c) 42 Mixed Battalions brigaded with 14 British Rifle Battalions and 14 Indian M.G. Battalions, each 3 rifle companies and 3 M.G. platoons ...	126	126
(d) 39 Unbrigaded Mixed Battalions ...	117	117
Total of Alternative Organisation ...	387	243

Thus, the Logical Organisation would have 13 more rifle companies than the present one and the same number of M. G.

platoons, while the Alternative Organisation would have 36 more rifle companies and 9 more M. G. platoons. It is thus apparent that the Alternative Organisation would require far too large an increase in strength and so in expense, if nine M. G. platoons per brigade are going to be required. If only six platoons are necessary, however, the Alternative Organisation, though still requiring 36 more rifle companies, would need 72 less M.G. platoons than the Present Organisation, as its total strength of M.G. platoons would be reduced to 162. Its cost would then be about the same as that of the Present Organisation in all probability. The Logical Organisation would still be a good bit cheaper, but the advantages of the Alternative Organisation in other ways might make it worth while to adopt it.

Conclusion

If the foregoing arguments and conclusions are correct there would appear to be no really insurmountable obstacle to the introduction of Indian M.G. battalions. It is considered, however, that the present Indian Infantry battalion is the most suitable unit for the purposes of the Indian Army. For this reason the alternative solution which has been suggested would seem to be preferable provided that—

- (a) Six M.G. platoons are sufficient for a brigade, and
- (b) No other additions are made to the armament of Indian Infantry battalions.

If only six M.G. platoons per brigade are required, then under the Alternative solution the only reorganisation necessary would be the turning of 36 battalions into rifle battalions. The remaining 81 would remain exactly as they are now. Amongst other advantages this would entail a far smaller expenditure on the alteration of barracks. Under the Logical solution all units would have to be reorganised and so all barracks would have to be altered.

WANA NEW CANTONMENT

BY COLONEL R. L. BOND, D.S.O., M.C., R.E.

For a year and a half there has been in progress in Waziristan a project which is in all probability the largest troop labour construction work ever undertaken in this country. Many of the problems which have arisen are of common interest to Commanders, Staffs and Troops, and it is thought that a description of these problems and the methods adopted for solving them, in so far as they are of general rather than specially technical interest, may be worthy of description.

Wana is situated at the eastern end of a plain some 15 miles long from east to west and on an average 5 miles wide. First occupied by British troops in 1894, it has from time to time been garrisoned by militia, by regular troops and again by militia.

In 1919, involved in the unrest and difficulties consequent on the 3rd Afghan War, the small loyal garrison carried out a prolonged and gallant fighting withdrawal to the Gomal under the able leadership of Major G. H. Russell, South Waziristan Militia, thence to Moghalkote and finally, after further heavy fighting, to Mir Ali Khel. It was reoccupied and then again evacuated in 1922, and was finally reoccupied by the Manzai Brigade in 1929. Since that date Wana Brigade has been accommodated in a Perimeter Camp under canvas. In 1930, estimates were prepared for building permanent barracks for the Brigade and had reached an advanced stage when the financial crisis and an element of uncertainty as to policy in regard to the final disposition of troops on the Frontier brought the work to an end. By 1934, however, the worst of the financial storm had been weathered, policy was settled and it became a matter of urgency to provide alternative accommodation to tents under which troops had been living in somewhat unhealthy and uncomfortable conditions for 5 years.

In 1933, the troops in the outlying forts on the Khajuri plain, guarding the approaches to Peshawar, had built barracks for themselves at low cost in remarkably short time. The form of construction being single storey hutments made of hollow concrete blocks. The admirable success of this work pointed a way to the solution of housing the troops at Wana at a minimum of expense, and early in 1934 the policy of building Wana on the lines of the Khajuri

plain hutments was submitted to Army Headquarters, the approximate cost of the work being given as 40 lakhs. This estimate was based on the costs of the Khajuri plain hutments with necessary allowances for the extra cost of transport. Late in June, 1934, information reached Headquarters, Waziristan District, that the proposal had been submitted to the Secretary of State and that the work of preparation of detailed plans and estimates was to be taken in hand forthwith. It is of interest to note that at this stage and for some months, the matter being treated as one of policy, the correspondence was conducted by General Staff Branch. Details began to come under discussion at an early stage and, as the majority of these details were necessarily administrative in character, the conduct of the correspondence through General Staff channels to some extent led to duplication of work and necessitated very close collaboration between the various branches of the staff and the M.E.S.

Before any project estimates could be prepared, decisions on several important matters of policy were essential. First, and most important was the question of site. In 1930, Government had purchased the land within whose boundaries the existing cantonment, the landing ground, the ranges and the recreation grounds to the north were contained. At the south-east corner of the area and in close proximity to the camp were certain Kaches which had been left in the hands of Wazir cultivators; Kaches which it was politically and economically undesirable to expropriate. These Kaches are breeding grounds of a particularly powerful mosquito, and medical opinion was strongly averse to the new cantonment being built on the existing camp site. The problem was complicated by the presence of a deep wide nullah, dry except in spate season, close to the northern perimeter of the camp, so that the alternative sites were either well to the north of the existing Government boundary or partly astride this nullah. The former alternative was favoured by medical opinion but suffered from the grave disadvantage of being far from existing water supply, in a stony and barren waste impossible to irrigate and therefore to make reasonably habitable. As also it doubled the distance for the carriage of sand and stone for making concrete it would have been impossible to keep the cost within the figure of 40 lakhs. The second alternative was tactically and technically unsound, and both these courses entailed buying a great deal of extra land.

Furthermore, there was a long and complicated history in regard to land purchase and ownership which it was essential to bring to a satisfactory conclusion before action was taken finally to select the site. A decision to build partly on and partly to the west of the existing camp site entirely within the existing boundaries was reached at the end of August, and it was then possible to go ahead with the block lay-out plan.

The lay-out plan was approached with the dismal lessons of Razmak in mind. The characteristics of Razmak built mainly in 1923 and the following years are lack of space, cramped buildings, irregular and inconvenient placing, lack of various amenities, irregular perimeter and many other disabilities. The first requisite was to obtain balance in the size of the perimeter between the demands of tactical security and the demands for adequate breathing room, and it was eventually agreed that, with the provision of six permanent picquets and of good perimeter lighting, a maximum of $2\frac{1}{2}$ miles or 700 yards between picquets could be permitted. This gave reasonably adequate space in the camp. In actual fact the perimeter is $2\frac{1}{4}$ miles in length. Various conflicting requirements had then to be reconciled. First, the three battalions had to be spaced more or less equally round the perimeter; secondly, it was laid down that so far as possible all horsed or animal transport units were to be on the southern perimeter to form a barrier against mosquitoes; thirdly, Supplies, Dairy and Grass Farm had to be at the east end where the main road from railhead entered the camp. Traffic circuits had to be carefully thought out; Cavalry, Artillery and Engineers had to be near one another as the officers of these units shared one mess. One important point which led to much discussion was whether Officers' Messes should be grouped mateily round a species of ornamental garden in the centre of the camp, or spread round the perimeter. Almost unanimously opinion was in favour of the latter; the prospect of listening to a succession of neighbours' guest nights and the limited view entailed by the former proposal were sound reasons against it, a strong preference for sites with wide open views winning the day; this has strong advantages from the psychological point of view which is of great importance in perimeter camps.

It was apparent that before any steps could be taken to commence the Project Estimate the actual establishment for which buildings were to be constructed had to be settled, together with

a complete list of the actual buildings necessary. This work was undertaken in early August, 1934, a provisional list by units was compiled in the C.R.E.'s office showing establishments by ranks, including followers public and private. The list contained in detail the description of buildings as laid down in Barrack Synopsis. The list was first submitted to the "A" staff for check of establishments and subsequently all officers concerned, Heads of Departments, C.R.A., Os. C. units and Brigade Commander were asked to examine the list of buildings and to say what authorised or unauthorised buildings they considered absolutely essential. Even at this early stage the fact that the cost of the project was to be limited to Rs. 40 lakhs made it clear that the strictest economy in design, in specification, and even in restriction of buildings authorised by Barrack Synopsis would be necessary.

It was foreseen that the consumption of water in the construction of the concrete buildings would be high, and that as the work proceeded the lines ready for occupation would require additional water for irrigation purposes, so that the development of the water supply was a first essential.

The troops available for work in Wana were the three battalions of the Brigade and a Field Company of S. & M. and it was obvious that, taking into account the calls of training columns and so on, this was quite insufficient to carry through this gigantic task in any reasonable time, and that additional troops would be necessary. In the first instance a request was made for one extra battalion. Eventually, no infantry unit being available from elsewhere, it was decided by Army Headquarters to send a second Field Company of Sappers and Miners and an Army Troops Company S. & M. to Wana for the purpose, infantry labour being provided by the garrison from its own resources. It had been calculated that the economical combination of Sappers and Miners and infantry labour was 240 working infantrymen to one Field Company, and in the end this turned out to be an accurate figure, the lack of labour having to be made up by civil cooly labour and machines. The third Sapper and Miner unit created an additional demand for attached infantry.

Sanction of the project was received early in September, 1934, a sum of Rs. 2 lakhs was allotted for expenditure in the current year, and instructions received to press on with the work as soon as possible.

In the meantime, as a result of the detailed discussions on the establishments and lists of buildings referred to above the whole position was reviewed by a committee consisting of the Brigade Commander, Wana Brigade, the G.S.O.I. A.A. & Q.M.G., A.D.M.S. and C.R.E. with heads of other departments and services where their interests were affected. This committee became a permanent part of the organisation. There was such an immense number of problems on which it was essential for the C.R.E. to obtain rulings affecting every sort of unit, that this committee formed at once the quickest and the most authoritative means of arriving at conclusions and of putting up to the District Commander, and where necessary to higher authority, recommendations on a hundred matters requiring decision before plans and designs and therefore estimates could be prepared. After the first meeting in August, a long list of matters requiring decision by higher authority was submitted, and the reply received early in October showed that the conception of the work was now far beyond the original simple Khajuri plain hutment scheme and many items were ordered to be included which were outside the scope of the original Rs. 40 lakh estimate. Whilst, therefore, preliminary works, water supply, manufacturing organisation, laying of Decauville track to the *bajri* nullahs were being carried on, the primary problems of policy were being thrashed out. It became necessary to point out that the accretions to the original estimate due to the extra works which had not been contemplated in that estimate, such as double dining rooms, mosquito netting for both British and Indian barracks, fans and so on were mounting to several lakhs of rupees. A decision was then given by H.E. the C.-in-C. that in no circumstances was the estimate to exceed the sum sanctioned by the Secretary of State, namely, Rs. 40 lakhs. A factor of the utmost importance before any progress could be made with the estimate or design was to settle the policy in regard to the scale of establishments for which accommodation was to be provided, that is, 75 per cent. of peace establishment or 100 per cent. of any intermediate scales. The Wana Committee examined this question in detail taking into consideration such matters as minimum strengths, leave and furlough, local conditions as affecting numbers of followers and so on, and at a meeting held early in December, 1934, the Committee made its recommendations for all units and all types of buildings. The Army Commander was

present and gave his approval to the scales proposed which were later agreed to without substantial change by Army Headquarters. The fact that the Army Commander was present and gave decisions on many points of policy was of immense help to the District Authorities and enabled work on the project estimate to be put in hand probably a month earlier than would otherwise have been the case.

The next important matter with which the Committee had to deal was to consider how to keep the project within the figure of Rs. 40 lakhs. For this purpose the various buildings and services were divided into three categories: (A) Essential items; (B) Highly desirable, but not absolutely essential; (C) Desirable, but not so far as could be seen capable of being financed.

All these proposals and classifications were submitted to Army Headquarters and rulings received in the middle of January. It was not, however, until the middle of February that the scale of barrack accommodation was finally settled, and work on the estimate could proceed. This estimate was, of course, not comparable with the ordinary down-country barrack project, as the type of construction had no parallel in Waziristan, and costs had to be worked out on a troop labour basis from first principles. In fact a special schedule of rates had to be made, and each type of building separately calculated. It may be of interest to know that the final estimate consisted of some 39 parts, the summary alone making a pile 3 feet high, whilst the detailed workings formed a pile of foolscap over ten feet in height. Had it not been for the fact that the Wana Committee was able to settle practically all problems affecting both Staff and Engineer executive over the table and obtain decisions thereon with the maximum of rapidity, it would have been quite impossible to have produced this estimate in the short space of 3 months; for it was completed (6 typists working day and night for three weeks) by the middle of May, cleared the fence of Command Headquarters in 24 hours, and received the sanction of Army Headquarters in a few days.

One difficulty that presented itself at an early stage in the project was that of transport. It has been pointed out that Wana is 62 miles from narrow gauge railhead at Manzai. It was estimated that some 700 tons of stores would require lifting in each of the first three months, and afterwards a steady average of 300 tons a month over this winding and mountainous road. In actual

fact the stores did not come forward at first from the I.S.D. as quickly as expected and transport has been lifting a fairly steady 400 tons a month from the start. The nature of the stores, electric light poles, 20-foot iron joists, steel trusses, Decauville rails, all of considerable lengths have presented problems in loading which have required considerable ingenuity on the part of transport and loading personnel. The exigencies of unloading from trains and loading on to M.T. and the difficulty of anticipating the arrival of narrow gauge trains has made the task of the battalion in Manazi no easy one in providing working parties, but, the estimates providing for military labour, no alternative is practicable.

Finally, the organisation of labour. Each of the three battalions in Wana does one month's work in three on the project. There is necessarily an element of competition for there is ample room for difference in the quality of work produced, particularly in the quality of the concrete blocks, the wastage from badly made blocks and the time factor. It is an indication of the high standard reached that a wastage of only three or four blocks in a thousand on the block making platform has been attained. When it is remembered that an average wastage of 1 per cent. makes a difference of Rs. 5,000 in the cost of the project, the value of so high a standard is clear. These results are remarkable, whilst the interest shown by the troops and the cheerful spirit in which they undertake this unaccustomed task is beyond praise. There is no doubt that the sight of the barracks rising rapidly around them, barracks which bid fair to be amongst the most comfortable in India, is stimulating particularly to those who may hope themselves to occupy the buildings.

In conclusion it is desired to emphasise the great importance in all projects of deciding at an early stage on a firm policy and sticking to it. Changes in policy, especially at the last moment, in building no less than in tactics and strategy conform to the old adage "Order, counter-order, disorder", and inevitably lead to waste of time and effort and generally of money; whilst any attempt to force the pace of work ahead of a final policy always leads to waste of money. Again, the preliminaries of a large project take time. In this case, although the order for the plant for block making was placed immediately the sanction for the project was received, delivery was only obtained in January four months later, and by working at high pressure the plant was partly ready in

March, but not complete until early in May. Before working plans can be commenced the outline plans have to be signed and accepted by various authorities, and all this takes time, especially if the plans are subject to discussion. In this project, as has been pointed out, policy was not settled till February 1935, and as work was beginning in March the physical production of plans could not keep pace with the practicable rate of work and remained in this condition of close pursuit for a long time. The position is clear; no policy, no plans, no work; early policy, early plans, quick work.

STAL
TERS
GER

ALA

SKETCH № 1

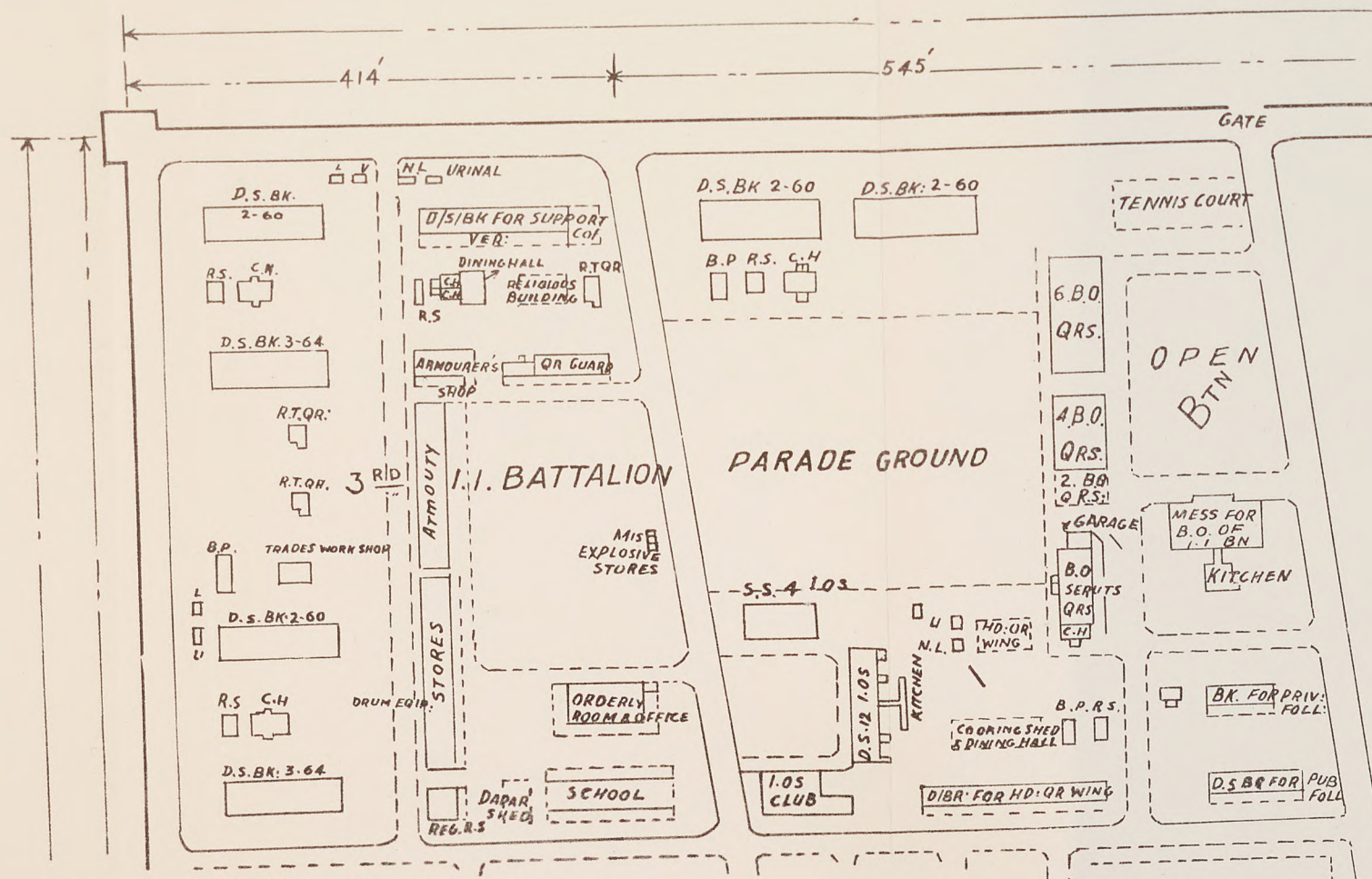




PART LAY-OUT OF NEW WANA

SCALE 1" TO 50 YARDS

SKETCH No 2



INFANTRY DRESS IN INDIA

BY "RIFLEMAN"

The present dress of the infantry in India seems to be a painful attempt at a compromise between smartness and utility, with both sides losing heavily. We struggle now in various ways to recapture the glamour of scarlet and green for ceremonial parades. The result, in a kit that is meant to be suitable for service, is not satisfactory. Few people would mind the discomforts of the old full-dress again, scarlet or white, because having struggled into it, the spectators are at least getting their money's worth, and the wearer some justification for flinging a chest. But most people mind the agony of knife-creased khaki drill for ceremonial purposes when at the end of it they merely form a drab blob on a dust-heap. In addition, the Government is being put to the unnecessary expense of maintaining practically two separate kits in many cases, neither kit justifying itself, either by appearance or utility.

To deal first with my purely destructive proposals, there are five articles of clothing or equipment which could be abolished with advantage. The first of these is the long puttee, both the dark and light variety. It is a fair commentary on these inventions of the devil that, after a regiment has been in India for a short time, especially anywhere near the Frontier, they are cut down to short puttees, stowed away for ceremonial parades and guards, used as cummerbunds or as an emergency device for evacuating the wounded; but on training and in the field are never found in their rightful place as "supports for the leg," a phrase which must have caused many a blistering comment from T. Atkins in the "Shiny." Long puttees constrict the veins and muscles and are, I should imagine, a cause of varicose veins, they get sodden and heavy when wet and in the hot weather cannot be anything but unhealthy. For drill and ceremonial purposes short puttees and well-suspended hose-tops look smarter and are incomparably more comfortable. Something more definitely designed for the purpose could be carried for emergency evacuation of the wounded.

Secondly, the K.D. tunic. When heavily and well starched it looks very nice until the first movement of arm or body, when

it creases and folds in a most unsightly manner. Worn in this way it is fiendishly uncomfortable, cold in cold weather and hot in hot weather. To add the finishing touch the average dhobi does not starch it well, with the result that the collar and neck look and feel like a circular saw. When worn "au naturel" it looks appalling and remains entirely unnecessary. In cold weather the banyan is a warmer garment, and for even colder weather the S.D. tunic serves its purpose. In hot weather shirt sleeves need no overcovering, and a sweat-sodden tunic looks no better than a sweat-sodden shirt. One is left to suppose that the K.D. tunic is worn because after all "one must preserve the decencies," as if there was something inherently unclean about a bare arm, only to be tolerated in dire necessity.

Thirdly, K.D. slacks. As worn at present they have the peculiar double rôle of ceremonial order and a safeguard against malaria. For drill and ceremonial surely shorts are just as smart and a good deal cooler. Again, one can only suppose they are worn as a stern practical protest that the English knee at any rate will not be ceremonially exposed.

Fourthly, leggings for officers. A great many regiments condemn officers to wear breeches and leggings for ceremonial parades, while sometimes the sentence is breeches and long puttees. It is difficult to decide which is the more refined torture. To make either look smart they must be done up tightly, and in this condition marching is almost an impossibility. And the official reasoning that they are cheap does not seem to cut much ice with those who have to wear them as most officers would prefer to wear field boots, if one can judge from conversation in the Mess and the suppressed longings of infantry field officers and company commanders, prevented by an over-paternal regard for their pockets from showing the quality of their legs and their bootmakers. For drill and ceremonial parades well-cut field boots are most comfortable, both mounted and dismounted, easier to march in and incomparably smarter. In Razmak on column I saw mounted officers wearing jodhpurs and marching boots; breeches and long puttees; breeches, hose-tops, short puttees, and boots or chaplies; field boots and ordinary dismounted kit, but personally I never saw leggings. However, I am not suggesting that officers should wear field boots on column, as later on I am going to suggest a kit which is suitable for long walks and long rides.

And lastly, that snare and delusion the "Christmas Tree" leather equipment for officers. With the full load of war-toys carried by this lack of system, an officer is at times in serious peril of strangling himself. Taking off and putting on one's equipment is a five or six minutes work which does not leave much rest out of a ten minutes halt. When a regiment goes to the frontier officers have to wear web equipment, and if it was made universal by order the price might reasonably be expected to come down. In this particular case the bogey is very nearly dead already, but a considerably increased demand should bring the price down well below Rs. 47.

Constructively I suggest the following orders of dress which are based on common sense:

(1) Drill and ceremonial order for other ranks.

Headgear as most suitable for the class and race enlisted.

Greyback shirt, with the addition of the banyan or S.D. tunic when necessary. In this connection the banyan should be improved considerably in quality and made in some grey, khaki, or greeny colour instead of the unpleasant shade of dark brown it is at present.

Shorts; hose-tops; short puttees and boots.

(2) Ditto for officers.

Dismounted: Same as the men.

Mounted: Breeches and field boots.

(3) Marching: Fighting order. All ranks.

Headgear as above except that now all ranks would wear the same as their immediate command.

Greyback shirt worn outside the trousers. The spectacle of trained troops with flying shirt-tails might well cause a deep shudder to pass down the rows of cofined commanders who won our Empire in velvet and pipeclay, but that unprincipled body of men known as the Frontier Force have, I believe, advocated it for years. Anyone who has given the system a fair trial will agree that it is a great deal cooler and more comfortable. It can hardly be sanitary to march 20 miles with a great wad of wool in the fork, and a policy of laissez-faire, or "hands off our shirts," is not an adequate answer in itself. The sleeves of the shirt should be rolled up and not cut off, even with the added attraction of trimmings, as one sees often enough. It is almost an impossibility to fire accurately with one's elbows resting on red-hot rock, thorns,

ice or those little pests called chubby-dusters, unless the sleeves can be rolled down as a protection. There is, I believe, a Spartan school that maintains it is good for the men and makes them tough.

Banyan and S.D. tunic where necessary.

Trousers. Shorts have many great advantages, which are obvious, but they have also two big disadvantages. First, they expose the bare knee on service to the red-hot rock, etc., mentioned above. In peace time no one notices this, because only real enthusiasm or the near presence of a senior officer makes anyone crawl about at all. Everyone thinks it will be all right during the night. It would be interesting to hear from people, who were on the last Mohmand show for instance, whether there was much minor irritation from this cause. However, this is by far the smaller of the two disadvantages I had in mind. The other is the question of mosquitoes. I think most night guards in this country in malaria districts wear trousers. On service the man or the transport must, therefore, carry them, in addition to the normal spare pair of shorts. I suggest, therefore, that it would be better if the man wore in the daytime something that he could also wear at night. I suggest a sort of trouser made from strong khaki drill, worn with enough slack to allow full play to the knee, narrowing down slightly to the ankle where it would be folded round the top of the boot and held in position by short puttees. It should have two small eyeletted holes above the short puttee to allow for drainage. It would certainly be a good deal hotter than shorts, but the Italians wore something very like it in temperatures as hot as anything we are likely to meet. It would not be as uncomfortable when wet as might be imagined, because the officers of a certain regiment wear it when out jheel shooting and the trousers dry very quickly and are not more uncomfortable than any other wet clothes. By wearing these trousers we lose some airiness and some lightness as regards the clothes on the man, but we have cut down at least a little weight from the grand total. For officers and other ranks who are going to spend more time riding than walking, some of the slack can be taken down under the short puttee, thus converting it into a sort of overall. The purist can even wear spurs, while the mosquitophobe can cover up his eyeletted holes at night by tying the short puttee a few inches higher.

This leaves the complete kit of officers and men somewhat as under:

OTHER RANKS.	OFFICERS.
Headgear.	Headgear.
3 Greyback shirts.	Greyback shirts.*
2 pairs shorts.	Shorts, trousers.
2 pairs trousers.	(Breeches, field boots.)
Socks, hose-tops, short puttees.	Socks, hose-tops, short puttees,
Boots, chaplies.	boots, chaplies.
*Officers could wear the bush shirt pattern, with shirt neck and collar and large side pockets, in fighting order.	

A BRIEF REVIEW OF MILITARY, POLITICAL AND ECONOMIC PROBLEMS IN THE BALTIC

BY MAJOR A. F. MORTON, R.I.A.S.C.

1. *General.*—Present-day problems in the Baltic are of very considerable interest to all military students. Events which are taking place in countries bordering on the Baltic Sea must, in the very nature of things, have a direct bearing on the political relations of Great Britain. In the first place on account of the great volume of trade with the Baltic States, and secondly on account of the ever present possibility of war breaking out in that part of the world. This would almost inevitably lead to a general conflagration, into which Great Britain would probably be drawn. This latter aspect has been somewhat obscured lately by the Italo-Abyssinian conflict and the Austrian and Rhineland disputes, and the attention of our military and political advisers has, naturally, tended to bear more on the Mediterranean and Suez Canal problems, rather than on the dangerous, but somewhat less pressing problems of the Baltic.

It is considered, therefore, that a brief review of these problems and of the conflicting interests of what we generally term the Baltic States will be of general interest. It is, of course, impossible in the space of this article to give more than the briefest survey of these problems, since the Baltic Sea is bordered by no less than ten states, all with conflicting interests and policies—some large and powerful, some small and comparatively insignificant. By a curious paradox, however, the smallest ones are the ones which are most likely to cause trouble, and it is with these that I shall chiefly deal in the present review, rather than with larger states such as Sweden and Denmark.

A recent stay of rather over a year in Estonia with various trips to other states enabled me to study Baltic problems at first-hand, and although much of what I am going to say is general knowledge, I must emphasise that, in some parts of this survey I shall be expressing personal opinions which may not necessarily coincide with official views on the subject.

2. *Historical.*—In order to get the present-day situation as a whole into perspective, it is necessary to go back to pre-war days and to study the changes which have taken place as a result of

the Great War and the Treaty of Versailles. Prior to 1914 the grouping of states round the Baltic Sea was very simple. It consisted of only four states, *i.e.*, Denmark, Sweden, Russia and Germany. By contrasting this with the present grouping it will be seen how much more complex the situation has become. During the Great War these four states were sharply divided by sentiment and national policy, as follows: Denmark and Russia, Germany and Sweden. Denmark throughout the war was strongly pro-Ally and Sweden pro-German. Germany retained the initiative at sea, but made comparatively little headway in operations directed against Riga until the collapse of Russia in 1917. Reval, Helsingfors and Kronstadt were never seriously attacked. On the other hand, Russia never succeeded in taking and holding Memel for more than a few days. It will be seen, therefore, that up to the outbreak of the Revolution in Russia, few if any changes took place. The collapse of Russia, however, altered the whole situation. Finland, Estonia, Latvia and Lithuania at once began to work for independence and although, as provinces of Russia, the Bolsheviks endeavoured to carry the revolution into them, the people as a whole were decidedly anti-Bolshevik. To understand this it is necessary to remember that these four states, which are now rather loosely termed the Baltic States, are racially entirely different from the Russians. The Finns and Estonians are offshoots of the Magyar tribes and closely akin in language to the Hungarians. Letts and Lithuanians, however, belong to the Indo-European group, with a language closely akin to Sanskrit. Each has a different national outlook and each has strong nationalist sentiments. By the end of 1917 the situation was as follows. Germany had occupied Lithuania and most of Latvia (then known as Courland) and order was more or less restored in these states. Estonia and Finland were struggling hard against Bolshevism but were making little headway. In sympathy they were, if anything, pro-Ally, but were cut off from help by the Allies entirely, and in desperation turned to Germany with an invitation to take over their countries in order to rescue them from the Bolsheviks. The Germans were not slow to take advantage of this offer, and in a remarkably short space of time, order was restored throughout the Eastern seaboard of the Baltic. Provisional governments, composed mainly of the pro-German elements, were set up in each country, under a general military control, and Germany confidently looked forward to taking over the whole of these countries on

the conclusion of peace, should she be victorious. And it must be remembered that up to this time she quite expected ultimate victory. The year 1918, however, saw the downfall of Germany and the withdrawal of German troops from these states, which were now in the unpleasant position of being between the devil of Bolshevism and the deep sea of various interventionist movements directed against Russia. Both of these, be it noted, were equally unpleasant for the peoples of the Baltic States. These unfortunates wanted neither Communism on the one hand, nor a restoration of White Russian influence on the other, since both meant an end to their dreams of independence. Overtures were accordingly made to the Allies to establish their independence, and Mr. Lloyd George took up their cause with enthusiasm, in order to create a chain of buffer states between Bolshevik Russia and Western Europe. The difficulty which here arose was in the multiplicity of peoples and territories involved, and under the then sacred principle of self-determination (which was to create such economic havoc later throughout Europe), the former Russian and German provinces were split up into the following: Poland and the Polish Corridor (separating East Prussia from the rest of Germany), Danzig, Lithuania, Latvia, Estonia and Finland. Military missions and Allied control committees were despatched to each new capital, and in the case of Estonia and Finland active intervention was afforded against the Bolsheviks. Governments composed of pro-Ally elements were established, and Allied (mainly British) influence was once more restored throughout the Baltic. So far so good; but almost immediately arose the problems of conflicting economic and political interests which persist to this day.

3. *The Economic Aspect.*—Let us next examine the economic problems brought about by the events outlined above. Prior to 1914, when these territories formed part of great economic entities, *i.e.*, Russia and Germany, the Eastern seaboard of the Baltic comprised rich pastoral, forest and dairy farming tracts with enormous exports from the principal seaports, Danzig, Memel, Libau, Riga, Reval and Helsingfors, not only of their immediate products, but also those of the vast empires to the East and South. In those days the harbours were crowded with shipping, and round the harbours grew up large factories, machine shops, constructional works and shipyards supporting great urban populations. After the Treaty of Versailles, however, this group of small states became

entirely uneconomic territories. All the export trade from the hinterland dried up. Latvia and Estonia found themselves with capital cities large enough for states ten times their size and nothing to support them with. They became, in other words, all head and no body, and rapidly sank to their present economic level, with attendant lowering of the standard of living, financial difficulties and unemployment. A trip round the outskirts of Riga is a tragic illustration of this. One sees disused factories everywhere, and quays and docks once crowded with shipping lie forlorn and empty. The same applies to a varying extent to Helsingfors, Reval, Libau and Memel, and it is difficult to see how these states can ever regain their former prosperity while they cling to their national and political prejudices. Each state hedges itself round with currency and tariff restrictions, and each is desperately anxious to preserve a favourable balance of trade. One thing alone they have in common, namely, that they are all uneconomic entities with common enemies and trade rivals. Up to 1914, their favourable situation as seaboard provinces of Russia and Germany with direct access to the markets of the world, resulted in the establishment of great and flourishing industries. As an example, a very considerable percentage of the textile requirements of Russia came from Estonia and Latvia. These industries are now dead, or at best struggle on with difficulty, the factories employing but a mere tithe of their former hands. This is, very briefly, the economic position to-day.

4. *The Political Aspect.*—Let us now turn to the political situation in these states. It is perhaps unnecessary to say that politics are largely governed by economics, and that the military situation is more or less the direct outcome of both. That is why I have, first of all, given a brief outline of the economic position. In order to gain an idea of the military situation we must next examine the political aspect. The whole political horizon of the Eastern Baltic is overshadowed by fear. That is, fear of being swallowed by Russia or Germany.

Up to the year 1933 all attention was focussed on Russia, but actual fear of aggression from the East was to some extent allayed by a belief in the efficacy of the League of Nations, and by the hope that Great Britain, France and Germany could not afford to see the Bolsheviks in possession of the Eastern Baltic seaboard. Events in Germany, however, since the rise to power of Hitler, have moved the danger point from Russia to Germany,

and it must be remembered that there is a large German or pro-German element in all the Baltic States. This particularly applies to Latvia and Estonia. In fact the Teutonic Knights once held the whole of these countries, and Riga and Reval were for hundreds of years under the sway of the Hanseatic League. The so-called Baltic barons were of course pure German, and their descendants were the large estate owners right down to the declaration of independence in these countries. Most of these estates were then confiscated, but the German element remained and constitutes an ever present danger to the real natives of these countries. More recent events have only tended to make the fear of Germany still more acute. The Abyssinian crisis has shown the utter inability of the League of Nations to protect its smaller member states from aggression, and the obvious reluctance of both Great Britain and France to meet aggression with force, even where their interests are directly involved, has naturally created the gravest apprehension in the minds of the statesmen of all the smaller European states. Everyone is familiar with the general layout of the Polish Corridor and the Free City of Danzig. The former is a strip of territory about thirty miles wide, cuts off East Prussia from the rest of Germany and affords a perilous outlet to the sea for Poland. Flanking it is the City of Danzig—nominally under the League of Nations, actually ninety-six per cent German. At the sea end of the Polish Corridor the Poles have developed the port of Gdynia. This has cut the trade of Danzig by half, and here we have all the elements of a first-class conflagration. The only wonder is that this Gilbertian situation has lasted to the present day. When one considers that the Germans are cut off by a narrow strip of foreign territory from one of their most fertile provinces, with all the attendant pin-pricks of customs barriers and restrictions to free intercourse between the two parts of their country, one can only express astonishment at their forbearance so far. There is, of course, no doubt that Germany could cut the Polish Corridor within twenty-four hours of the outbreak of war. Danzig would quite certainly declare wholeheartedly for such a move and the Polish port of Gdynia would fall immediately into German hands. Recent events illustrate in graphic fashion the tension brought about by the League of Nations control of Danzig. The desperate efforts of the Nazis to end this control and to acquire complete domination of the Free Port have recently culminated in Herr Greiser's outbreak in the League Assembly

and in various regrettable incidents in Danzig. Poland has been placed in a very awkward predicament by these events, for she undertakes on the one hand to preserve the independence of the Danzig territory while, on the other hand, she fears an open breach with Germany. In view of the present trend of German policy it appears likely that her claim will not be pressed too seriously at the moment and the dispute will probably be allowed to die down. The explosive matter, however, still remains and it needs little imagination to see that it may flare up again at any time. In this connection a word is necessary regarding the last election in Danzig. Readers may imagine that the return of only fifty-eight per cent. in favour of the Nazi regime shows that the German element is not so predominant as is stated above. This is far from the truth, since the Danzigers have always been jealous of their status as a free city, and a very considerable proportion mistrusts the present leaders of Germany as it imagines that Nazi control would end this free status. They are, nonetheless, German at heart, and in any major crisis would declare to a man for Germany. We may, therefore, expect further incidents in the near future, until such time as the League of Nations' control is ended and Danzig reverts to Germany. One thing is quite certain, and that is that German agitation towards this end will show no diminution but rather the reverse.

To the East the next bone of contention is Lithuania, with special reference to Memel. This important port was seized by Lithuania in 1923 in defiance of the Treaty of Versailles. It is, like Danzig, almost wholly German both in population and sympathy, and remains so despite the repressive measures carried out by the Lithuanian Government. These have, on many occasions, led to strained relations between Berlin and Kaunas and on the last occasion, in 1935, almost led to war. When one considers the proud and war-like spirit of the Prussians one can, again, only wonder at the forbearance which still keeps this entirely German town under Lithuanian control. There is little doubt, however, that Germany is only biding her time. Lithuania has, again, always been at loggerheads with Poland, since the Poles seized Vilna after driving back the Bolsheviks in 1921. Vilna is a purely Lithuanian town, just as Danzig and Memel are German, and it will be very surprising indeed if this centre of seething unrest does not blaze up sooner or later. Latvia and Estonia are in a slightly better situation politically, in that they have no very

immediate and dangerous questions likely to bring them into conflict with Russia or Germany, and in this respect Finland is perhaps the most secure of all. The point noted above must not be lost sight of, *i.e.*, that a large and influential section of all these countries is German in sympathy. On the other hand there is a considerable Communist element which leans to Russia. The Russian danger is, at the moment, obscured by events in the Far East and Germany, but an eminent authority on Russia has recently stated that Russia under Communism remains just as greedy of territory and has the same expansionist schemes as had Tzarist Russia, and this is in all probability correct.

This brief survey would be incomplete without mention of the recent rapprochement between Estonia, Lithuania and Latvia. This takes the form of a common foreign policy, or rather an interchange of ideas on questions of policy, together with certain trade and tariff agreements. This question of amalgamation of the three states mentioned has been mooted for many years. Far-sighted people have long seen that these states have no hope of ever becoming sound economic units and that a united front, both political and military, is necessary for their ultimate salvation. As has been pointed out, however, racial differences have so far prevented this and it is questionable whether they will ever really combine into one state. This latest alliance is a step in the right direction, however, and there is a possibility that some sort of federal constitution may eventually be set up, if only under the threat of war.

5. *The Military Aspect.*—As stated above, the military situation is dominated by the political situation, and is overshadowed by the constant threat of war with, or between, Russia and Germany. The latter has, since the advent of Hitler, become the more pressing danger, and in this respect we see that the focus of attention has moved from East to West. From 1919 to 1932, all General Staff plans and troop concentrations were directed towards the Soviet frontiers. Since 1932 the position has altered entirely, and the Baltic States, from being buffer states to keep Bolshevism out of Western Europe, have become bulwarks of Soviet Russia to keep Germany out of White Russia and the Ukraine. Let us now examine the military problems of each country separately. The first point to consider is the Polish Corridor. At the present time there appears to be very little doubt that Germany intends sooner or later to attempt to expand Eastwards. She does not,

however, want to have to fight her way through Poland if it can be avoided. All her efforts have been directed lately towards getting Poland away from French influence. This has resulted in a loosening of the tension over the problem of the Polish Corridor, but has not altered the fact that the Corridor is, as already stated, but a perilous outlet to the sea for Poland. It is in fact entirely at the mercy of Germany, and to all intents and purposes is practically indefensible. Should Poland refuse to come to an agreement with Germany, the latter will strike Eastward to the Vistula, join hands with forces from East Prussia and cut off the Corridor and the Port of Gdynia in the first few days of war. From the line thus attained Poland would find herself facing German forces on the North and West simultaneously, and her only hope would be to join the U.S.S.R. in the hope of restoring the line Krakaw-Warsaw-Vilna, with Russian aid. It may be said in passing that should Germany invade Poland and Lithuania, Russia would certainly be drawn in.

Let us next consider *Lithuania*. In common with all the Baltic States universal service obtains. The country presents no serious obstacles and is composed mainly of heath and forest land. It is flat or undulating, with a certain amount of marshy land which dries up in summer and is frozen in winter. The only towns of any size are the capital, Kaunos (formerly Kovno), and Memel. A force of about twelve divisions can be put into the field, but their capacity for resisting a first-class military power could only be rated as low. This is mainly accounted for by the poorness of the country which makes mechanisation and equipment on a first-class scale impossible for financial reasons. They have, therefore, the option of letting the Germans (or Russians) march through their country or of joining in with one or the other. As things stand at present they would almost certainly be allied with Russia against Germany, and would probably be utilised to defend the line Vilna-Kaunos-Memel, or alternatively Vilna-Libau. The Lithuanians are good fighting material, but it is doubtful whether they could put up as tough a resistance as the Letts or Estonians.

Latvia is in a rather different situation, and should war break out between Russia and Germany it would be difficult to foresee at present which side the Letts would ally themselves with. They would probably endeavour to remain neutral, in common with Estonia and Finland, but whether, in view of existing agreements

with Lithuania and Estonia, they would be allowed to do so, is very doubtful indeed. Riga and Libau, the chief ports, would almost certainly offer too tempting a proposition for Germany to resist. Equally certainly, they are too valuable in the strategic sense for Russia to allow them to fall into German hands. The Letts are very tough fighters indeed. They maintain a standing army of about 25,000 officers and men, have a small but efficient air force, and could in emergency probably put about ten divisions in the field. In common with Lithuania and Estonia they suffer from lack of modern equipment owing to financial difficulties. Communications are difficult, railways poor and roads for the most part bad. Most of the rolling-stock is pre-war Russian and would not stand up to the wear and tear of war. The country is again undulating or flat with no considerable heights, and is fairly thickly wooded. The only serious obstacle to an invading army is the line of the Dvina. It will be remembered that it was on this line that the Germans were held up for so long in 1916-17. It may be mentioned in passing that the Letts provided some of the best regiments in the pre-war Russian army. They have a dour temperament, a nasty strain of cruelty and a disregard for human life which makes them formidable opponents.

Estonia was given considerable assistance by Great Britain in establishing her armed forces after the Great War and this is reflected in the uniforms and organisation of the army and air force and by the very cordial relations which have existed between us since. They maintain a standing army of about 12,000 officers and men and could put about seven divisions in the field if emergency arose. They are first-class fighting material, but suffer also from lack of modern equipment. They have, for instance, only a few antiquated armoured cars and tanks dating back to the Great War, and their artillery and machine-guns are (or were up to 1933) equally antiquated. A further difficulty is that there is an almost entire absence of iron and coal in the Baltic States which necessitates the import of almost all machinery. A corollary to this is the absence of machine shops and heavy engineering industries. This is a severe handicap and means the buying from abroad of nearly all service equipment. Estonia is flat or undulating, has no hills of any size and is largely composed of heath, forest and swamp with many considerable lakes. Of these the largest is Lake Peipus, which, with the river Narva flowing out of it to the Gulf of Finland, forms the main line of resistance against

Russia. It may here be noted that along the entire Russian frontier of all these states there is a complete belt of wire with patrols, searchlights and machine-guns—not to keep people out of Russia so much as to prevent the proletariat escaping from the Bolshevik paradise. The Estonian air force is small but efficient and is equipped mainly with British machines. It was originally organised and trained by British air force officers, and so far as it goes could give a good account of itself, but would of course stand no chance against the masses of the Russian air force. At present, however, with the moving of the danger point to Germany, Estonia is more favourably situated than Latvia and Lithuania as its geographical position on the Gulf of Finland renders it much more difficult of attack from East Prussia. Also its proximity to Leningrad and Kronstadt makes it easy of reinforcement and protection by the Russians by land, sea and air. Estonia possesses one of the largest, if not the largest, oil shale deposits in the world. This is situated between Tallinn (Reval), the capital, and Narva on the Gulf of Finland, and although not yet fully developed, would form a most valuable source of supply in war. Indeed, it takes the place of coal for many purposes now. It is rich enough to dig out of surface quarries and burn in railway engines without treatment, and is used exclusively by the railways and by various factories.

Finland is in many respects the most fortunately placed of all the Baltic States. It is, for instance, more an economic unit than any of the others as it has almost unlimited supplies of timber with all its attendant industries. It is again most favourably situated from the strategic point of view since, composed as it is of a myriad lakes and forests, its land frontiers are almost impregnable under modern conditions. Communications are poor except by water, but its network of waterways makes it easy to defend and difficult to invade. Anyone who has travelled through this maze of lakes and rivers will appreciate the defensive advantages of this country. Narrow, rocky strips of land, covered everywhere with dense forest, alternate with deep and unfordable stretches of water. Concealment from the air is perfect, and the task of forcing a way through this labyrinth in the face of modern weapons would be indeed Herculean. Finland has a small but efficient army (32,000 officers and men) and an air force (60 machines) which show German influence in equipment and training. She could put about 200,000 men into the field in case of emergency. The

chief danger from the military point of view is the proximity of the capital, Helsingfors, and most of the chief towns, to Leningrad and Kronstadt. Although I consider that the Russians would have the greatest difficulty in taking these places by land, they would be easy targets from the air. The Finns are bitterly opposed to any interference from Russia and would be likely to take Germany's part in any conflict between Russia and Germany, but this would most probably take the form of benevolent neutrality rather than active intervention. It will be seen, therefore, that she is the least likely of all to be drawn into war in the near future and, owing to her geographical isolation, is not likely to be drawn into any alliance with her neighbours.

Sweden and Denmark, although bordering on the Baltic, do not come within the scope of this article to the same extent as the states already dealt with. Their geographical situation keeps them apart from the political and military dangers of the South Eastern Baltic countries, and they would be very unlikely to be drawn into any conflict arising there. Sweden has, of course, always had a leaning towards Germany, whilst Denmark, in common with Norway, inclines towards Great Britain. This is mainly due to commercial interests, particularly shipping, but the Scandinavian countries present a problem of their own, apart from the Baltic, and would need to be considered in a separate survey.

This concludes this brief review of Baltic problems. I need only say in conclusion that our interest from a military point of view is at present centred on the Polish Corridor, East Prussia, Danzig, Lithuania and, to a lesser extent, Latvia. These places make up a powder magazine which is likely to explode at any moment and no one can say what the limits or repercussions of such an explosion would be throughout Europe and the rest of the civilised world.

MOUNTAIN ARTILLERY

BY MAJOR M. E. S. LAWS, M.C., R.A.

The decision to convert Light Artillery Brigades, R.A., at Home into mechanised Army Field Brigades and Anti-Aircraft units, coincides with the proposed replacement of Light Batteries, R.A., in Mountain Brigades by Mountain Batteries. As a result of these changes, there will shortly be no Mountain Artillery units in the British Service, if we except the two or three Heavy Batteries abroad which are trained as Pack Artillery in a secondary rôle and the Mountain Battery of the Hong Kong Brigade of the Hong Kong-Singapore, R.A.

The early campaigns of the British Army were mostly confined to the plains of Western Europe, and for many years there was little need to provide artillery specially equipped for mountain warfare. But during the later stages of the Peninsula War, Wellington found himself fighting in the Pyrenees and felt the need of small guns which could accompany infantry over the precipitous and roadless passes on the French frontier. In response to a demand for such guns, Marshal Beresford sent up a few 3-pounders from Lisbon and attempts were made to collect Spanish mules. Lieutenant W. L. Robe, R.A., was placed in command of a composite battery consisting of Portuguese gunners and British drivers and equipped with three 3-pounders carried in pack and three captured French 3-pounders altered for single draught. With this hastily improvised equipment Lieutenant Robe took part in the Battle of Nivelle (1813) as part of the 6th Division and later was employed against the French gunboats on the Adour, a curious use for the only mountain battery then in existence. When peace came Robe's Mountain Battery was broken up and no effort seems to have been made to retain even a cadre unit with pack equipment, though particulars of the organisation and equipment used were preserved.

Just as the first British Mountain Battery was being broken up in Spain, the Bengal Army was busily equipping a very similar unit for service in Nepal. Up till that time the British in India had used gun lascars to move their guns in the face of the enemy, while bullocks were used on the line of march. The "Experimental Troop of Bengal Horse Artillery" [now "F" (Sphinx)]

Battery, R.H.A.] was first formed in 1880, and nine years later it was decided to raise five more similar batteries with horse draught. Until then the Bengal Army had been called upon to fight only in the plains of Southern India, but in 1814 the campaign in Nepal produced entirely new problems. The Horse Artillery was obviously not suitably equipped for service in the hills, and in September 1814 orders were issued for the preparation of 12-pounder howitzers for carriage by coolies. The piece and carriage were made to divide up into separate loads, but the experiment was not altogether a success and in the end guns were usually carried on elephants or laboriously dragged by long teams of men over hastily prepared tracks. Despite this experience no real effort was made to investigate the question of artillery draught in hill campaigns, and beyond demonstrating the unsuitability of Horse Artillery, the unreliability of elephants as gun carriers, and the disadvantages of coolie transport, the Nepal War did little to solve the problem.

Curiously enough the next experience of Mountain Artillery came once again from Spain. A British "Legion" under Sir De Lacy Evans was engaged in the Spanish civil war of 1837, and part at least of its artillery was carried in pack on mules. One of the gunner officers who served in the campaign was Captain J. B. Backhouse, who in 1840 was detailed to raise a Native Mountain Battery for the service of Shah Sujah, the claimant to the Afghan throne. This officer, who appears to have possessed exceptional mechanical ability, introduced various alterations to the guns and carriages handed over to him by the Ordnance Department and he certainly raised, trained and equipped India's first Mountain Battery in a surprisingly short time. By November 1840 the unit had joined the Kabul garrison, the gunners and drivers being Indian artillerymen specially recruited for the Shah Sujah's service but commanded by British officers. The battery took part in the confused fighting around Kabul which preceded the disastrous retreat towards Jalalabad, and behaved with remarkable steadiness, but it was almost completely destroyed in the Khurd Kabul Pass. On the conclusion of the war it was broken up. (Governor-General's Orders of 16-6-1843.)

A year later the military authorities in India decided to investigate the whole question of equipping artillery for mountain warfare, and a committee was assembled at Jutogh to report on

the equipment and mode of transport of "Mountain Train Batteries." (Governor-General's Orders of 8-6-1844.) The experience of artillery officers who had fought during the Nepal campaign was considered, and eventually the Committee recommended that 12-pounder howitzers and 3-pounder guns should be designed for mule transport. In due course the equipment for a 6-gun battery was provided (three 12-pounder howitzers and three 3-pounder guns) together with 168 mules, which were handed over to a European unit at Peshawar—the 2nd Company, 2nd Battalion, Bengal Artillery [later 9th (Kabul 1842) Light Battery]. This battery had already had experience of mountain warfare, having fought throughout the Nepal campaign and taken part in General Pollock's advance to Kabul in 1842, though it had never previously had special equipment for hill fighting.

At first the mountain guns and mules were regarded as special equipment which was to be used when required, but the 2nd Company, 2nd Battalion, Bengal Artillery, was still in possession of the normal Field Battery equipment and was not regarded as a purely Mountain Battery. In 1854, however, special personnel for the mule-borne guns was authorised, and an establishment of 1 subadar, 1 jemadar, 2 European staff sergeants, 6 havildars, 6 naiks, 2 buglers, 88 sepoy, 168 syces, 2 native farriers and 120 grass-cutters was fixed. This detail was permanently attached to the special Mountain Battery equipment and was known as the Peshawar Mountain Train [to-day 3rd (Peshawar) Mountain Battery, R.A., F.F.]. The equipment had been used by the 2nd Company, 2nd Battalion, Bengal Artillery, during the Black Mountain Expedition of 1852-3, the Hindustani Fanatic Expedition of 1853 and the Michni Mohmand Expedition of 1854, but after then it was manned by the Peshawar Mountain Train. A second unit—the Hazara Mountain Train [to-day 4th (Hazara) Mountain Battery, R.A., F.F.]—was raised at Abbottabad about this time for local defence.

After the Mutiny the defence of the North-West Frontier at first devolved almost entirely on the Punjab Frontier Force. At that time the batteries of this semi-independent organisation were officially organised as Light Field Batteries and a Garrison Battery, but it was soon found more convenient to use mountain guns in pack rather than wheeled field guns. After the conquest of Sind, Brigadier-General John Jacob raised his own "Mountain Train,"

which is to-day represented in the Indian Army List by the 6th (Jacob's) Mountain Battery, R.A., and the 5th (Bombay) Mountain Battery, R.A. Thus, when the East India Company's army was absorbed by the Royal Army in 1862, there were two Indian Mountain Batteries (the present Nos. 3 and 4) on the Bengal establishment, and two others (the present Nos. 5 and 6) in the Bombay Army. These were the only units permanently equipped for mountain warfare with mule transport.

The experiences of the Punjab Frontier Force during the decade following the Mutiny indicated clearly enough the necessity for having mobile batteries capable of operating over the roadless country of the North-West Frontier. During this period two more "Mountain Trains" with Indian personnel and mule transport were raised at Murree and Jutogh, and to these were attached British batteries of Garrison Artillery to form Mountain Batteries when necessary. Meanwhile, improvised British Mountain Batteries were employed during the Bhutan campaign (1864), and one of these (5th Battery, 25th Brigade, R.A., now 27th Medium Battery, R.A.) later fought in Abyssinia (1867). This was the first British unit of the Royal Artillery to be permanently equipped as a Mountain Battery. The two "Mountain Trains" were allotted to the 6th Battery 8th Brigade, R.A. (now 3rd Light Battery), and the 11th Battery 9th Brigade, R.A. (now 12th Heavy Battery) for the Second Afghan War (1878-80), both units taking part in the celebrated march from Kabul to Kandahar.

One important result of the Afghan War of 1878-80 was the demand by the military authorities in India for more mountain batteries, and it was decided that certain Garrison Artillery units should be equipped as Mountain Batteries for the whole of their service in India. To distinguish these units the word "Mountain" in brackets was added to their normal designation (Regimental Order No. 13 of 1881), but it was not until 1889 that ten such batteries were reorganised as a separate branch of the regiment and were numbered as Mountain Batteries from 1 to 10.

During the following year these Mountain Batteries, R.A., together with the Indian Mountain Batteries had almost a monopoly of active service, being constantly employed on Frontier Expeditions. In consequence they were greatly sought after by keen young officers and the British personnel were especially selected, while the Indian drivers were also picked men. A British Mountain

Battery (No. 4) took part in the South African War, another (No. 6) fought in Aden in 1903, and a third (No. 9) in East Africa (1901), but the bulk of their service was performed on the Indian frontiers. Several batteries went to France in 1914, but it was at Gallipoli, in East Africa, Palestine, Mesopotamia and Salonika that the British Mountain Artillery was chiefly employed during the Great War. In 1920 (A.C.I. 451/1920) the batteries were re-designated "Pack Artillery," and later a brigade of three batteries was allotted to each division at Home for close support duties. This latter change necessitating an increase in the branch from the pre-War ten batteries to twenty-one batteries, while the number of Indian Mountain Batteries had by that time increased to nineteen, plus a detached section for Chitral. In 1927, British Pack Batteries were designated Light Batteries (A.O. 88/1927), while Indian Pack Batteries became Mountain Batteries and regained their old numbers.

The recent provision of infantry mortars for close support duties and the pressing need for increasing the Artillery arm, led to the withdrawal of Light Brigades from Divisional Artilleries at Home and their conversion into mechanised Army Field Brigades or Anti-Aircraft units. This opportunity has been taken to abolish British Light Batteries in India and to replace them by Mountain Batteries, so that within a short time there will be no regular British Mountain or Light Batteries in existence.

It is to be hoped that the British Light Batteries now in India which will thus become Indian units will not disappear from the Army List, but will be reconstituted at Home as Field or Anti-Aircraft units. All gunners will regret their passing for sentimental reasons, but their fine traditions of gallant service in many frontier campaigns will remain in the safe keeping of their successors of the Mountain Artillery.

TROUT FISHING IN KASHMIR

By "R. H."

This article is primarily intended for those who contemplate fishing in Kashmir for the first time. The paragraphs dealing with preliminary arrangements indicate useful lines of enquiry, to be followed up through the Game Warden's Office in Srinagar, fishing agents, or (best of all) friends who know the Kashmir waters. Some fishing hints follow.

The trout fishing season in Kashmir extends from the 1st April to the 30th September. A list of "open" waters, which vary from year to year, can be obtained from the Game Warden. This list also explains the conditions attached to the grant of licences, and gives general information about camping sites, distances, etc.

Most beats are bookable by the week, at a charge of Rs. 30 for each of the two rods allowed. A few streams are reserved as "daily" waters, *i.e.*, they may be booked only for a limited number of days in any one week. Daily and weekly waters can usefully be combined to fit in with an odd period of leave. Incidentally, one daily water—the Kokarnag—is, with the exception of the Maharajah's private preserves, probably the best trout stream in Kashmir.

The provisional booking of all waters opens on the 1st January, and it is advisable to be early in the field.

The Game Warden's list warns fishermen that sport in the Kishenganga, Sindh, Aru and Shishnag, is normally poor from the 15th May to the 15th July, owing to snow water. Snow water is the curse of Kashmir fishing. After a hot, cloudless day, rivers swell into a turbid and almost unfishable torrent. There is, however, a good deal of luck about snow water. We have known the Shishnag to fish excellently during a cloudy week in June, and the Sindh to be almost hopeless for three days out of seven in hot September weather. Taking it all round it is safest, if unenterprising, between May and August to book rivers such as the Kokarnag and Achhabal, which have their resources at low elevations. As a general rule, too, the best fishing months are April and September.

Apart from considerations of snow water, those who prefer peace and solitude should avoid the Aru and Shishnag in July and

August. Pahalgam, at their junction, is a thriving Hindu holiday centre, and the concentration area for the annual Amarnath pilgrimage. Those swimming a dog in a pool may induce stiff salmon to rise, the splashing of visitors does not appear to have the same beneficial effect on Pahalgam trout.

If, in addition to fishing, a lengthy stay is being made in Gulmarg, it may not be worth while bringing a car to Kashmir. Tolls, petrol and garages are expensive items, while enforced idleness does not improve a car. On the other hand, there are motorable roads to many of the beats. A large tarpaulin is useful, as garages are rare by the waterside. Chains may be invaluable after rain. It is highly annoying to be stuck for lack of them on the way to one's fishing, as once happened to us on the Bringhi road.

For the married, with a good deal of kit, it is worth considering hiring a lorry from Srinagar. Lorries seem to go with impunity where one would hesitate to take a car. Still, when fishing widely separated beats, it is convenient to be independent of hired transport. The attachment of a trailer makes even a "family camp" self-contained, and may save a lot of money when transporting kit to and from Kashmir.

The details of this transport problem are well worth going into, before finally deciding on a beat.

Camp gear of all descriptions can be hired in Srinagar. This may save money, dependant on the cost of bringing ones own to Kashmir. Servants can also be hired, but it is advisable to bring a personal bearer. Camp coolies can usually be engaged on the spot. It is not possible to generalise about stores, beyond saying that, except in Pahalgam, it is unwise to count on more than eggs, milk, and chickens. A few beats can be fished from rest houses, *e.g.*, the Lowest Bringhi and Kokarnag, and other rest houses are being built.

Until one knows the ropes, it saves trouble to employ a Srinagar agent. The bigger firms, if given reasonable notice, can make all camping arrangements. As to the selection of, and dealings with, an agent—get a friend's advice. With a few notable exceptions, Kashmiri tradesmen are "kittle cattle" to deal with. Have nothing to do with the touts who pester visitors on arrival in Srinagar. They are as dependable as Port Said hawkers.

Nearly all trout tackle is imported, and a fair average price is 20 per cent more than in England. Try, therefore, to forecast

requirements, and bring them out from Home. Suggestions are given later. Be careful of small dealers, as their stock (particularly gut) may not be fresh, and their prices may be ridiculous. In order to check local prices, and nomenclature when ordering by post, it is useful to carry a catalogue. Fishing tackle can be purchased in Srinagar, where several big English firms have agents.

Fishing shikaris vary greatly. Try to get a recommendation from a friend, as good men are often booked in advance, and a bad shikari is a riverside pest. Each beat has a watcher. On arrival at your fishing, study his book, which is a fisherman's log of the water. The most useful entries, if the water and weather conditions happened to be similar, are those relating to the same dates in previous years. Note the times of day at which trout were feeding, also the *sizes* (too seldom given) of successful flies or baits. Do not be unduly depressed if you lack the whatever-it-was that X considered the only sure killer. Trout are as variable in their fancies as anglers. When entering up the book yourself, so that your name may be blessed, put down all the information you wish you had known on arrival.

Now for the fishing itself. Kashmir rivers are mainly stocked with brown trout; a few hold rainbow as well. The present record stands at $14\frac{1}{2}$ lbs.; a "good" fish weighs about $3\frac{1}{2}$ lbs. Fly, lures, and—on rivers specified in the Warden's list—artificial spinning baits, are allowed. Natural baits are barred to the angler, but unfortunately not to the fish, as a post-mortem in the frog season shows.

We use three rods—a light spinning rod; an 11 ft. fly rod, stout enough to cast light spinning baits without strain; and a "feather-weight" split-cane for dry-fly work, or as a relief to a tired arm. Such a battery is not, of course, essential. For the occasional fisherman we suggest one general purpose rod, with alternative tops for fly fishing and spinning.

Though one rod will suffice, use different lines for fly fishing and spinning. A fly cannot be easily thrown with a twisted line, and some kinking is almost inevitable when spinning. Anti-kink leads and "paired" baits, spinning reverse ways, minimise this nuisance. Since the last few yards of spinning lines are apt to chafe, we recommend a fairly cheap undressed silk line, home-proofed with Cerolene. Eighty yards are not too much, as then weakened pieces can be broken off the end. Besides, one never

knows what may happen. This year (1936) on the Middle Sindh, a fish hooked in heavy water, though hard held, ran just on 80 yards before it could be stopped in a pool. Twenty minutes later, alas, it departed.

Changing a line takes time, so two reels are almost essential. If you have three, take them, and keep one sacred to a dry-fly line. If only one, a spinning reel (*e.g.*, the Silex) can be used equally well for fishing and spinning. The opposite does not apply.

The extensive use of fly lures (large flies with two or more hooks in tandem) is a peculiarity of Kashmir fishing. Some lures (notably the long tailed "Peacock") probably resemble small fish when drawn against the current. Fished down-stream, their generous wings and hackles give the impression of life and movement which attracts trout. Lures generally fish best in heavy water, or in the evening.

Usually, we think, lures are taken out of irritation or curiosity. On newly opened waters they may be deadly, but on rivers which have been fished for some years, they seem largely to have lost their fascination for the bigger trout. In low, clear water, or when trout are feeding on the surface, they should only be experimentally tried.

A good deal of the lure's popularity is, we suspect, due to their attractive appearance—in the eye of the angler himself. This is all to the good, as it instils confidence! We suggest buying only a few patterns, but several of each in different sizes. Golden Lion, Peacock, Silver Doctor and Terror, offer a good variety.

The foregoing remarks also apply to salmon flies (sizes* 1/0 to 5), but the fly has one marked advantage over the lure. With its single hook, far fewer undersized fish are badly damaged. Silver Doctor, Black Doctor and Jock Scott are good patterns, but we prefer light, short dressed flies such as Blue Charm and Silver Blue. Trout, like salmon, do not so quickly detect, and expel, these imitations.

When trout are showing, first try ordinary English "lake" flies, *i.e.*, about size 4, and not bigger than size 8. Kashmir trout, and big trout, too, take an imitation of the natural fly, or embryo, more freely than some fishermen suspect. It is not easy to get specimens of local flies, but the majority appear to be black, black and white or silver, rich brown, and grey. Greenwell's Glory, Watson's Fancy, Silver Butcher, Silver March Brown, Cinnamon and Gold, and the

* All sizes are Hardy's.

Black Zulu are satisfactory imitations. The best all round fly (we have not yet discovered the reason) is Teal and Green. There is a special series of Kashmir flies on the market, but we have not found them to be as effective as the English patterns mentioned.

In slow or medium currents, an orthodox way of fishing lures (or salmon flies) is, after casting up and across, to allow the fly to sink a little and then draw it gently round until directly downstream. Throughout its travel the fly fishes best close to the surface, or close to the bottom. There is nothing to induce a trout to hover in mid-water.

In fast currents, and the late evening, it usually pays to cast more down-stream, and keep the fly moving fairly fast on the surface.

When fishing a large single fly, we often try the greased line methods which the late A. H. E. Wood of Glassel made famous for salmon fishing. We think that as many Kashmir trout move to a fly fished in this fashion. Certainly far fewer rising fish are missed. Those interested will find that "Jock Scott's" book on Mr. Wood's discoveries make fascinating reading.

"Lake" flies should, whenever possible, be fished upstream. Cast frequently, throw a short line, and stalk the trout as warily as you would a black-buck.

Small fly spoons have their day, and fished downstream are useful for exploring recesses under the banks. In deepish water, when fish are not showing, try adding a little lead to the trace. When fish are moving, and especially in the evening when they run into the shallows to feed, a spoon thrown upstream is sometimes taken as it touches the water. Gold, silver, and polished copper, either alone or in combination, are good colours. Sizes range from $\frac{3}{8}$ " to $1\frac{1}{4}$ ". A $\frac{3}{4}$ " gold and silver spoon is probably as good as any.

Records show that the majority of heavy fish are taken on artificial minnows. One reason probably is that most big fish are cannibals who seldom stir far from the bottom. The habits of Kashmir trout are later discussed; it suffices to say here that a minnow is usually most effective when fished a foot or so from the bottom.

An orthodox method of fishing lures has been described; minnows are fished in much the same way. In fairly fast water, however, it often pays to cast *well* up and across. If the bait is

kept up on first touching the water, the downstream belly of the line soon helps to keep it spinning well clear of the bottom. On occasion, too, a minnow kept hovering in the current may move a stubborn fish. Always fish a minnow right out on to the bank. Trout often follow up from deep water, and make a grab just as their prey appears to be escaping.

"All metal" minnows stand up best amongst the rocks of Kashmir streams. For general use we recommend the "Heavy" Reflex Devon. It is strong, casts well, and swims deep without the addition of lead. Gold and silver and, more occasionally, silver and blue, are taking colours; 1" to 1½" are suitable sizes. Remember when ordering minnows that a small variation in length may make a big difference in all round size.

Quill, aluminium and other light minnows up to about 3 drms. in weight, can be cast from a fly rod without undue strain. The "Sylph" and "Feathero" types kill well.

A word about casts and traces. These, when kept in their sealed packets and wrapped carefully in chamois leather, will keep fresh for two seasons. So be liberal if ordering direct from England. Start a week's fishing with, say, a dozen casts, and as many traces. Wastage varies greatly with the individual fisherman, but no one can prevent gut fraying quickly on the Kashmir rocks.

The strength of gut required depends on the force and volume of the water. In a fairly still pool, 3x gut can land any trout, but the same fish in the grip of a tearing current is a very different matter. The best rule is "fish as fine as you dare." With these reservations, we suggest 3 yd. level 3x casts for "lake" flies and small spoons; 2 yd. casts or traces, from 2 x to 0x, for lures, salmon flies and light spinning baits; and 1½ yd. 5/5 (Fine Salmon) traces for spinning a heavy minnow. In snow-fed waters, "mist green" is a good shade for gut.

In England, "where to fish" may be as important as "how to fish." In Kashmir we go further, and say that a man who knows where to fish, and has the energy to get there, will wipe the floor with an otherwise better fisherman who lacks the necessary eye—or determination. A golden rule is—never concentrate on attractive looking runs and pools to the exclusion of little bays, backwaters, and "hidey holes" below banks and amongst rocks.

Our reasons are these. Trout seldom roam far in search of food but, quite naturally, prefer the current to bring food to them.

Once they have found a protected and well supplied home, they hate being dislodged. The biggest trout take the best places.

In England, floating or drowned flies form a large part of a trout's diet, and there is no easier place to secure such food than a quiet pool, or even-flowing run. These, too, are the places where weeds grow best, and provide a happy hunting ground for shrimps, caddis and the like. Nor, for the most part of the year, are there sudden great rises of water to drive trout from open mid-stream hovers.

In Kashmir, flies are scarce on the main streams; the quieter carriers are far better places in which to lay eggs. Nor do the scouring summer floods give soil a chance to settle in the pools and grow weeds. Big trout, therefore, largely depend on frogs, tadpoles, worms and insect life swept off the rice fields. Such food is carried into little eddies and backwaters where, too, trout can lie without the discomfort of being constantly dislodged by snow water.

Thus it is that big Kashmir trout seek quiet corners into which their staple food is carried, and from which no torrent can drive them. They probably also know that by day their main enemies, herons and men, can seldom worry them there; by night they can sally forth with safety on cannibal raids.

There are exceptions to these arguments, but they are not far off the mark. Try, therefore, to surprise the trout in difficult places which you think no one else has visited that season. A falling river often makes this possible, and scrambling and wading will seldom be unrewarded.

When fishing a chain of small pools downstream, cast into the second pool and draw upwards over the lip of the near pool. Fish often seize anything that comes over them unexpectedly from below. Make a particular point of trying the back eddies below rocks in mid-stream. Explore small, deep backwaters, especially amongst rocks, by casting a fly upstream and letting it sink back into the still water. A little lead may help to get the fly where you want it; so may casting on to a rock and drawing the fly gently over the edge.

Try every bit of water you can find close to shelving banks, rocks, boulders, and (though risky) jammed logs. The more awkward the place, the likelier it is to hold a good fish. In deep, swift water use a heavy minnow. Do not be afraid of hand-lining.

or even dapping. When standing above and behind them, we have caught fish up to 5 lbs. within a yard of our feet. This may sound poor sport, but after hooking such a fish, one has to get him out! Hold him hard—often he will come to the surface, ready to net, before he realises what has happened. Never let a fish run, or be carried, into the centre of a strong current if you can possibly avoid it. For this, and other good reasons, play all heavy fish with a *sideways* strain, towards your own bank and, if feasible, downstream.

Reverting to localities, always fish the junction of fresh water—whether it be a carrier, tributary, or spring—with the main river. There is no likelier place for fish to lie, especially during a local shower, and in the evening. If you catch a big fish, mark down the exact spot, rest it for a day or so, and try again. You may often find that the next biggest trout in the neighbourhood has taken over the vacant hover.

Only a few words are called for on dry fly fishing, as anyone likely to try this art in Kashmir will already know what tackle to bring, and how to use it. Excellent fun can be had on carriers or big irrigation cuts—seldom on the main rivers themselves. On the side streams there is often a free rise just before and after sunset. We have caught very few fish over a pound on dry fly, but the more useful half pounders are notably plump and game. The feeding in carriers is usually much richer than in the main streams, and one short but delightful stretch beside the Upper Bringhi might almost have been transplanted from a Stockbridge water-meadow.

It is hardly worth while buying dry flies especially for Kashmir. If amongst your Home stock are Pale Watery Duns or Spinners, Olive Spinners, and Iron Blue Spinners, so much the better.

A few general hints. Whatever may be your intentions on starting out, sooner or later you will enter the water. Waders are hot, cumbersome wear. We suggest shorts and canvas fishing boots with *soft* iron nails, alternatively, grass *chaplis* which can be procured locally for a few annas. Wear two pairs of thick socks—the water is cold.

There are a good number of snags, particularly sunken timber, in Kashmir streams, so ensure that the breaking strain of casts and traces is less than that of lines. Breaking strains can be found on a spring balance. Old lines should be periodically tested, for

deterioration is rapid in India, especially if the line has ever been put away undried. If snagged, a pull in a directly opposite direction will usually clear the obstruction. A long stick, forked at the end, is invaluable for this purpose and, preferably shod, makes a useful wading staff.

You may have to land a big fish in heavy water, so provide your shikari with a big net that has some weight about the ring and handle. See that the shikari wets the net before use, and drops a pebble inside it. Many a good fish has been lost for lack of these precautions. It is wise to carry a light, folding net yourself, in case you are separated, or do not wish any movement close beside you.

Be prepared to carry out running repairs, particularly to rods. A tube of glue and waxed cobbler's thread will remedy most breakages. Sticking plaster is useful in an emergency. Spare gut points, to replace the frayed ends of casts, are essential. Add a tin of fat (*e.g.*, Cerolene) for greasing lines; light oil for swivels, reels, etc.; a few spare minnow mounts and swivels; a file for sharpening blunted hooks—and a spring balance! It is only fair on others accurately to record weights, and memory will be no less kind in later years.

Trout may prove an embarrassment in the camp kitchen, especially to bachelors. If a better home cannot be found for them while fresh, try this method of curing them.

Clean as soon as possible, and remove the head and backbone, but not the tail and fins. Twelve hours later, sprinkle the flesh lightly with sugar, then liberally with coarse salt. Rub the skin with a piece of rock salt. Lay flat on a board (a rock will do) for 24 hours, then peg out with sticks like a boy's kite. Finally, hang up on a shady, breezy bough, to dry. If flies are about, swathe the fish lightly in cheese cloth. Ware cats, hawks, and woodcutters!

Before using, steep in water for 12 hours, then simmer gently in milk. Trout prepared in this manner have been eaten in fishless Gulmarg with much appreciation, two months after being caught. There were no ill effects!

Our final advice, to lead you to such culinary experiments, is this. The ancestors of Kashmir trout travelled out P. & O. from England. Their descendants have had (like others) to modify their way of living in the East, but in essentials it remains the

same. So, if in doubt, fish in Kashmir as you would in England, and you will not go far wrong.

Sir Charles Holmes said of the English trout, "It is no single, common, identical, definite, determined and measurable fish, but rather ten thousand tantalising, distinct and different devils." The Kashmir trout has inherited all the characteristics which justify this description. One would not have it otherwise!

BASIC ENGLISH FOR THE INDIAN ARMY

BY LT.-COL. R. J. WILKINSON, O.B.E., R.I.A.S.C.

Of the three hundred or more languages current in India, sixteen are in use among the various classes enlisted in the Indian Army. This diversity of language, apparent in the time of the Moghul, gave rise to Urdu, *i.e.* (Camp language) a sort of pidgin Persian, which became the common language of the fighting men of India. Urdu eventually acquired a grammar and literature of its own. Its substantives are drawn from Hindi, Arabic and Persian, and frequently for one idea there is a choice of three words. In Delhi and northwards one finds the Persian forms used, in Karachi the Arabic, and in Bombay the Hindi. Urdu is normally written in Persian, Nagri, or Roman script.

As war grew more technical and education became the rule rather than the exception in the Indian Army, it was found necessary to translate some of the simpler training manuals into Urdu but, its vocabulary being too limited and its syntax too complicated for the presentation of modern ideas, it became essential to introduce English words.

Here again the script presented difficulties, and it was eventually found necessary to transliterate the language into Roman script. Hence was born Roman Urdu.

Training manuals are now translated into Roman Urdu for the use of personnel of the Indian Army, but there still remains a difficulty. The Army in India includes British troops, and although its British and Indian elements are trained on the same lines and absorb the same doctrine, intercommunication is still restricted to those who enjoy community of language.

The limitations of Roman Urdu may be summarised as follows:

- (a) It is a patchwork of Hindi, Arabic, Persian and misspelt English words.
- (b) Its structure is unsuitable for the communication of modern technical and scientific thought.
- (c) It is not generally understood by the British element of the Army in India.
- (d) It even presents difficulties to certain classes in the Indian Army. The fact that it is not their mother-tongue

makes it difficult for these to gain full value at training establishments where Urdu is the medium of instruction.

On the other hand, the number of English-speaking rank and file in the Indian Army is steadily increasing, and were the English language simpler there can be no doubt that more would speak it. The solution appears to be a simplified, non-idiomatic form of English with a limited vocabulary, plus a small technical vocabulary of military terms. Such a language, while sufficient for the sepoy, would be easily understandable by English speakers with a more advanced and comprehensive vocabulary.

Basic English, sponsored by the Orthological Institute of Cambridge, has a vocabulary of 850 words with which any non-technical idea can be expressed. Having learnt the English alphabet, any intelligent Indian should be able to acquire the basic vocabulary in three months.

Language is the means by which ideas are conveyed from the mind of the speaker or writer to that of the hearer or reader. A child or an uneducated person, with whom we can, for the purpose of this thesis, compare a person seeking to learn a foreign language, can at first only absorb simple ideas, such as "He goes," "They take food." As he progresses, he learns such phrases as "He goes on a journey," "They eat a meal." Later he learns to condense such statements by the use of "portmanteau words" or, as one might say, "grammalogues." He says, "He travels," "They dine."

Many of the words we use are a sort of shorthand for other words. For instance, we use the word "accelerate" as a more compact way of saying "go more quickly." We refer to breakfast when we mean our early meal. A person who is over ready to believe is referred to in our verbal shorthand as "credulous." We use the grammalogue "blindness" when we mean "unable to see."

The basic vocabulary has been formed by eliminating all words which can only be used in a special context, retaining only those simple words which can be used in a general sense and many contexts.

As further examples, take the following phrases:

"What are the arrangements for disembarkation?"

"What is the order of detraining?"

"What are the orders for debussing?"

These ideas can be more or less conveyed by the simple phrase, "How do the men get off the ship, train, lorries?" The basic vocabulary is given as an appendix to this article. It will be seen that it contains no more than 850 words. The complete vocabulary can be written on a single sheet of notepaper. It contains the bare essentials of the English language. By its aid, a person can convey any simple idea and sustain a non-technical conversation. As the learner becomes more practised, he will acquire a super-vocabulary of "portmanteau" words and technical terms.

Basic recognises no verbs but there is a list of 100 words which describe operations (Section C of the Appendix). These Operators are conjugated as necessary. Once learnt, the 850-word vocabulary automatically expands by the use of a few rules. For instance, the 600 words which give the lists of Things (Sections A and B of the Appendix) are expandable by the use of "s" to form plurals. Derivatives are formed by adding "er" to 300 of the nouns in Sections A and B. As already stated, Section C can be expanded by learning the conjugations of certain words in that list. Adverbs can be formed by adding "ly" to certain of the words in Sections D and E. Questions are asked, either by inverting the order of words in a sentence, or by prefixing the word "Do."

Measurements, numerals, dates, and international terms are given in the English form.

Grammatical difficulties are largely avoided in Basic by the adoption of a fixed word order. All sentences describe an action. In Basic, therefore, we always say, first, who did it, then what he or she did, then to whom or with whom he did it, finally when he did it. For example—

We will put the records on the gramophone now.

I may do my writing to-morrow.

I went to the theatre with a friend yesterday.

Basic English can be studied with alternative objects. It can be learnt as a universal language or as a preliminary to a more comprehensive and advanced knowledge of the English language. If taken as a universal language, technical ideas are conveyed in one of two ways. The Orthological Institute has prepared a number of technical vocabularies to be superimposed on the standard 850-word list. Up to date, these super-vocabularies deal with economics (50 words), business (50 words), and general science (100

words). Others are in course of preparation. If no special Basic vocabulary exists, technical words can be introduced into standard Basic and explained by interpolation or, if written, by means of foot-notes.

The object of this article is to urge the study of Basic English by the Indian soldier as a preliminary to a more comprehensive knowledge of the language as he becomes more practised.

From the following examples it will be seen that, while Basic uses more words to express the concise verbiage of "Infantry Training," those it does use are of more general currency and more elementary.

Section 3 of "Infantry Training," Vol. II, says:

"The proper co-operation of all arms wins battles and enables the infantry to confirm victory. The main object of the infantry is to close with the enemy and destroy him."

Basic English puts the same ideas in the following ways:

"The way for an army to overcome the enemy* is to have all its parts working well together. This gives the infantry† the power to make the outcome certain. The chief purpose of the infantry is the destruction of the enemy by coming to grips with him.

Urdu is the *lingua franca* of the Indian Army, but not of the Army in India. To be a truly homogeneous fighting force it needs a common language. If ordinary English is too difficult for the sepoy, let him be taught Basic English which will at least enable him to convey his thoughts to his British comrade. That English is the only possible language in which to convey modern training ideas to the Indian Army is shown by a glance at any Roman Urdu Training Manual. It will be found that practically all its substantives are mis-spelt English words. Enthusiasts for Urdu will say that this is a proof of the growth of Urdu, but why not teach the sepoy Basic English and enable him to recognise English military terms when spelt as they are intended to be spelt?

*Military men on the opposition side.

†Military men who fight on foot.

BASIC ENGLISH VOCABULARY

(A) THINGS—GENERAL (400 WORDS)

Account	Condition	Existence
Act	Connection	Expansion
Addition	Control	Experience
Adjustment	Cook	Expert
Advertisement	Copper	Fact
Agreement	Copy	Fall
Air	Cork	Family
Amount	Cotton	Farm
Amusement	Cough	Father
Animal	Country	Fear
Answer	Cover	Feeling
Apparatus	Crack	Fiction
Approval	Credit	Field
Argument	Crime	Fight
Art	Crush	Fire
Attempt	Cry	Flame
Attention	Current	Flight
Attraction	Curve	Flower
Authority	Damage	Fold
Back	Danger	Food
Balance	Daughter	Force
Base	Day	Form
Behaviour	Death	Friend
Belief	Debt	Front
Birth	Decision	Fruit
Bit	Degree	Furniture
Bite	Design	Garment
Blood	Desire	Glass
Blow	Destruction	Gold
Body	Detail	Grain
Brass	Development	Government
Bread	Digestion	Grass
Breath	Direction	Grip
Brother	Discovery	Group
Building	Discussion	Growth
Burn	Disease	Guide
Burst	Disgust	Harmony
Business	Distance	Hate
Butter	Distribution	Hearing
Canvas	Division	Heat
Care	Doubt	Help
Cause	Drink	History
Chalk	Driving	Hole
Chance	Dust	Hollow
Change	Earth	Hope
Cloth	Edge	Hour
Coal	Education	Humour
Colour	Effect	Ice
Comfort	End	Idea
Committee	Error	Impulse
Company	Event	Increase
Comparison	Example	Industry
Competition	Exchange	Ink

Insect	Mother	Rain
Instrument	Motion	Range
Insurance	Mountain	Rate
Interest	Move	Ray
Invention	Music	Reaction
Iron	Name	Reading
Jelly	Nation	Reason
Join	Need	Record
Journey	News	Regret
Judge	Night	Relation
Jump	Noise	Religion
Kick	Note	Representative
Kiss	Number	Request
Knowledge	Observation	Rest
Land	Offer	Reward
Language	Oil	Rhythm
Laugh	Operation	River
Law	Opinion	Road
Lead	Order	Roll
Learning	Organisation	Room
Leather	Ornament	Rub
Letter	Owner	Rule
Level	Page	Run
Lift	Pain	Salt
Light	Paint	Sand
Limit	Paper	Scale
Linen	Part	Science
Liquid	Paste	Sea
List	Payment	Seat
Look	Person	Secretary
Loss	Peace	Selection
Love	Place	Self
Lump	Plant	Sense
Machine	Play	Servant
Man	Pleasure	Sex
Manager	Point	Shade
Mark	Poison	Shock
Market	Polish	Side
Mass	Porter	Sign
Meal	Position	Silk
Measure	Powder	Silver
Meat	Power	Sister
Meeting	Price	Size
Memory	Print	Sky
Mesh	Process	Sleep
Metal	Produce	Slip
Middle	Profit	Slop
Milk	Property	Smash
Mind	Prose	Smell
Mine	Pull	Smile
Minute	Punishment	Smoke
Mist	Purpose	Sneeze
Money	Push	Snow
Month	Quality	Soap
Morning	Question	Society
		Son

Song	System	Vessel
Sort	Talk	View
Sound	Taste	Voice
Soup	Tax	Waiting
Space	Teaching	Walk
Stage	Tendency	War
Start	Test	Wash
Statement	Theory	Waste
Steam	Thing	Water
Steel	Thought	Wave
Step	Thunder	Wax
Stitch	Time	Way
Stone	Tin	Weather
Stop	Top	Week
Story	Touch	Weight
Stretch	Trade	Wind
Structure	Transport	Wine
Substance	Tree	Winter
Sugar	Trouble	Woman
Suggestion	Turn	Wood
Summer	Twist	Wool
Support	Unit	Word
Surface	Use	Work
Surprise	Value	Writing
Swim	Verse	Year

(B) THINGS—PICTURABLE (200 WORDS)

Angle	Branch	Cushion
Ant	Brick	Dog
Apple	Bridge	Door
Arch	Brush	Drawer
Arm	Bucket	Drain
Army	Bulb	Dress
Baby	Bull	Drop
Bag	Button	Ear
Ball	Cake	Egg
Band	Camera	Engine
Basin	Card	Eye
Basket	Cart	Face
Bath	Cat	Feather
Bed	Chain	Finger
Bee	Cheese	Fish
Bell	Chest	Flag
Bery	Chin	Float
Bird	Church	Floor
Blade	Circle	Fly
Boat	Clock	Foot
Book	Cloud	Fork
Bone	Coat	Fowl
Boot	Collar	Frame
Bottle	Comb	Garden
Box	Cord	Girl
Bot	Cow	Glove
Brain	Cup	Goat
Brake	Curtain	Gun

Hair	Orange	Spider
Hammer	Oven	Sponge
Hand	Parcel	Spoon
Harbour	Pen	Spring
Hat	Pencil	Square
Head	Picture	Stamp
Heart	Pin	Star
Hook	Pig	Station
Horn	Pipe	Stem
Horse	Plane	Stick
Hospital	Plate	Stocking
House	Plough	Stomach
Island	Pocket	Store
Jewel	Pot	Street
Kettle	Potato	Sun
Key	Prison	Table
Knee	Pump	Tail
Knife	Rail	Thread
Knot	Rat	Throat
Leaf	Receipt	Thumb
Leg	Ring	Ticket
Lemon	Rod	Toe
Library	Roof	Tongue
Line	Root	Tooth
Lip	Sail	Town
Lock	Scissors	Train
Map	School	Tray
Match	Screw	Trousers
Monkey	Seed	Umbrella
Moon	Sheep	Wall
Mouth	Shelf	Watch
Muscle	Ship	Wheel
Nail	Shirt	Whip
Neck	Shoe	Whistle
Needle	Skin	Window
Nerve	Skirt	Wing
Nose	Snake	Wire
Nut	Sock	Worm
Office	Spade	

(C) OPERATIONS (100 WORDS)

Come	Send	Off
Get	May	On
Give	Will	Over
Go	About	Through
Keep	Across	To
Let	After	Under
Make	Against	Up
Put	Among	With
Seem	At	As
Take	Before	For
Be	Between	Of
Do	By	Till
Have	Down	Than
Say	From	A
See	In	The

Any	While	Enough
All	Now	Even
Every	When	Little
No	Where	Much
Other	Why	Not
Some	Again	Only
Such	Ever	Quite
That	Far	So
This	Forward	Very
Who	Here	To-morrow
I	Near	Yesterday
He	Now	North
You	Out	South
And	Still	East
Because	Then	West
But	There	Please
Or	Together	Yes
If	Well	
Though	Almost	

(D) QUALITIES—GENERAL (100 WORDS)

Able	General	Quick
Acid	Good	Quiet
Angry	Great	Ready
Automatic	Hanging	Red
Beautiful	Happy	Regular
Black	Hard	Right
Boiling	Healthy	Round
Bright	Height	Same
Broken	Important	Second
Brown	Kind	Separate
Cheap	Patent	Serious
Chief	Like	Sharp
Chemical	Living	Smooth
Clean	Long	Sticky
Clear	Male	Stiff
Common	Married	Straight
Complex	Material	Strange
Conscious	Medical	Strong
Cut	Military	Sudden
Deep	Natural	Sweet
Dependent	Necessary	Tall
Direct	New	Thick
Early	Normal	Tight
Elastic	Open	Tired
Electric	Parallel	Trained
Equal	Past	True
Fat	Physical	Violent
Fertile	Political	Warm
First	Poor	Wet
Fixed	Possible	Wide
Free	Present	Wise
Frequent	Private	Yellow
Full	Probable	Young

(E) QUALITIES—OPPOSITES (50 WORDS)

Awake	Feeble	Public
Bad	Female	Rough
Bent	Flat	Sad
Bitter	Foolish	Safe
Blue	Future	Secret
Certain	Green	Short
Cold	Ill	Shut
Complete	Last	Simple
Cruel	Late	Slow
Dark	Left	Small
Dead	Loose	Soft
Dear	Loud	Sold
Delicate	Low	Special
Different	Mixed	Thin
Dirty	Narrow	White
Dry	Old	Wrong
False	Opposite	

DEFENCE AND THE GENERAL STAFF

BY LIEUT.-COLONEL A. G. BAIRD-SMITH, D.S.O. (RETIRED)

The South African War of 1899 and 1902 showed how a small war could so grow as to tempt a powerful outsider to intervention; yet the preponderating strength of the British Navy allowed this risk to be disregarded. The British Government, however, came to realise the need for revision of the haphazard system by which its expeditionary army had been raised and equipped, and the antiquated methods by which it had been controlled and directed in war.

A kind of constitutional convention, regarded as a fundamental "principle," had always assumed that the Civil Government, when deciding to extend its policy by means of war, had the sole right to decide when, where and how such war should be waged. Competence in such matters was deemed inherent in ministerial office; and this "principle," widely diverging from Continental practice, has always been a chief obstacle to any reallotment of professional and lay responsibility.

The most stubborn opponent of civil interference in things military had always been a royal commander-in-chief; even when he gave place to a professional soldier, the latter was expected to be obstructive and "reactionary." By putting his office into commission as an Army Council the Government effected a diffusion of his personal authority; while the Secretary of State for War, now President of a Council resembling the Admiralty Board, was placed in a position of enhanced power and independence.

The institution of a Committee of Imperial Defence appeared a kind of compromise with the fundamental "principle;" since its membership included not only the Prime Minister and the Admiralty and War Office political chiefs, but the highest officers of the Services as well. These, however, in full session were heavily outnumbered; and it was not to be expected that, in any disagreement, their professional views would have undue weight. The Committee possessed no actual executive authority, being merely "advisory" and "consultative;" but since such advice as it might offer was usually that of the Prime Minister as chairman, and of his Cabinet colleagues as members, there was little chance of its being rejected, even when contrary to professional opinion.

The newly-created Army General Staff was not an exclusively British model; it bore strong German impresses. It came into

being at a critical time; and the period for war preparation was to be all too short. Yet the organising of an Expeditionary Force, its training for a specific task, and its war-mobilisation, were matters with which it was quite competent to deal, without the advice or guidance of any political chief. The constitutional convention, however, contrived to represent the war minister as not only conceiving the whole project, but of giving birth to the concrete result; and the same fiction continues to endow each of his successors with a genius for military organisation, which he is unlikely to have or to claim.

On the outbreak of war in 1914, both the civil and professional members of the Committee of Imperial Defence became absorbed in their other principal duties; the military members in particular were rapt away to the theatre of war. The Committee ceased to function, and no one in authority had time to seek its further advice. The crisis demanded a professional war minister; but even he was appointed too late to prevent the bulk of the General Staff from quitting the War Office for the front. To the Field-Marshal, neither the discussions of a Defence Committee, nor of an Army Council, would at any time have been congenial; and in the first crowded "War Councils" he could see nothing but confusion worse confounded. The responsibility of ordering the whole national war rested on no one's shoulders, and certainly not on his; as for the war on land, he was not free to decide its "objectives," or the methods of attaining them—some inspired amateur could always obtain a hearing as well as he.

He was, of course, expected to raise a national army rapidly, *ex nihilo*, but even there the successes due to his energy and foresight were apt to be adopted by others, who measured his gigantic difficulties by their own well-advertised achievements. To the chaotic "War Councils" succeeded a small Committee of the Cabinet, in which the war minister was the only professional expert. It assumed, as of right, responsibility for everything; even claiming a voice in the executive control of operations. This arrangement certainly reduced the number of counsellors, but did not necessarily increase the wisdom of their decisions. To-day, should the Empire become involved in a major war, it seems certain that a similar committee of inexperts would at once grasp the reins in their unskilled hands.

To set up such an improvised war-directorate, not connected in any way with the peace-time organisation, would be to initiate

a new confusion; if nothing else sufficed, this alone would put any Committee of Imperial Defence out of action "for the duration." Even as at present reconstituted, with a number of sub-committees, the Committee is still a peace-time organisation; though now more precisely engaged in a so-called "co-ordination" of the "policies and plans" of the three General Staffs, it remains "advisory," and no one of its recommendations can be effected without the Government's approval. The Prime Minister and some nine of his colleagues having seats on the Committee, it might be thought no further reference would lie; but, in practice, all of these members being otherwise fully occupied with ministerial duties, the vice-president, as "Minister for Co-ordination of Defence," together with his sub-committees, is charged with producing the "advisory" material for their endorsement. This system has been described as "elastic;" and with some fifty sub-committees to be "co-ordinated," its results must often be very long drawn out.

With the appointment of a "Co-ordinator" and the creation of the "Chiefs of Staffs" Committee, collectively responsible for advising the Prime Minister, the Committee of Imperial Defence has begun to assume some resemblance to a "Ministry of Defence." It has its "man-power" and its "supply" sub-committees; and is thus at length in touch with the sources from which a "Ministry of Defence" would, in war, directly draw its supplies of men and material for the national forces. But the assumption that a political "Co-ordinator" is naturally endowed with the necessary strategic instinct or knowledge remains unquestioned and axiomatic as ever.

The appointment of a "Minister of Defence," whose State department would annex all such committees and sub-committees, might enable the foundations to be laid of a national war organisation, at present lacking. Here, again, political considerations would intrude. Unless the constitutional "fiction" or "principle" were to be abandoned, the new "Defence Minister" must be a parliamentarian of Cabinet rank; and if his Ministry was to absorb the three existing Service departments, the power and influence of his office would be so great as either to eclipse the Prime Minister, or to force him to assume the office himself.

The other difficulties of creating such a "Defence Ministry" are no less considerable. The first concerns the formation of a "Combined General Staff;" of which the existing "Chiefs of Staffs

Committee" may be considered the embryo. But it is inconceivable that a "joint staff" should not include the chiefs of the three separate staffs, or that it should be in a position to offer direct advice to the Government, contrary to their views. A "joint staff" would, of course, need a "chief" of its own, wholly occupied with the duties of his office and no others. The main business of the "joint staff," it has been suggested, would consist in "co-ordinating" the "policies," and controlling the "thinking" and executive activities of the existing staffs. "Co-ordination" is a vaguely attractive word; but it cannot be used as a kind of charm. If no more is meant by it than the fair adjustment of the Services' claims on the national purse, the recognition of their equal "status," or the synthesis of their respective war-doctrines, then, perhaps, a "joint staff" might be best able to undertake it. These would be peacetime duties; but a "joint staff" must be equally organised to function in war. Here the constitutional "principle" obtrudes itself; the most convinced advocates to-day of such a staff would, it seems, unquestioningly place it under a supreme political head.

Both in peace and war the head it would require would not be a kind of lay superior, but a first-rate, all-round professional expert. This elementary requisite of such an organism may, nevertheless, be not readily conceded. Prejudice reinforces the constitutional "principle," and is against intrusting the "military mind" with anything approaching political power or patronage; and of these the professional "chief" of a "joint staff" might easily acquire a large share. The upholders of the "principle" may not perceive the inherent incongruity of a lay "chief;" but unless they do, any such proposed staff must remain a mere fifth wheel to the Defence coach.

The selection of a professional "chief" would not, of course, at first be easy; even were it made, like a cardinal's election to the Papacy, by the suffrage of the whole corps of general staff-officers of the three Services. But if the most eminent of one Service, having perhaps no special knowledge of the others, were nominated, his shortcomings would still not approximate to those of a superimposed political head. In years of unbroken peace, a "combined staff college," supplementing the other colleges, might in time discover a "common denominator" of the Services, and produce a body of specialists, from among whom the future officers of the "joint staff" might be chosen. The careers of these officers could not be governed by the ordinary rules of promotion in their

respective arms; and since it would be impossible, even in the greatest of wars, for the "joint staff" as a body to leave its headquarters in Great Britain, few of its members could hope to win distinction in the field, or afloat.

The question would arise whether the "chief" of the "joint staff" should have direct or indirect access to the head of the Government. If, as at present, each Service department were in charge of a ministerial head, himself *ex-officio* president of its board or council, and also a member of the Committee of Imperial Defence, there would be no intermediate position which the "chief" could conveniently or usefully occupy; he would resemble the "Military Member" in the Indian Viceregal Council of Lord Curzon's day. The parliamentary heads of the Service departments would continue to act as filters to the opinions of their professional advisers, and to pass the extracts, with their indispensable imprimatur, on to the Cabinet. The "chief" of the "joint staff," on the other hand, would obtain these opinions crude; he and his assistants would combine them in a solution, which might often differ greatly in quality from the departmental refinements. If, in addition, a "Minister of Defence" stood between him and the Cabinet, his views might not even get a hearing. It could be argued that this indicates the necessity of the "joint staff" having a "supreme political head;" but it is difficult to conceive how he could be politically "supreme," or what his ministerial status would be.

If a professional "chief" of a "joint staff" were ordinarily to be allowed direct access to the Cabinet, this would mean that in war-time he would inevitably become a member of any "war-council" or "war-cabinet" that might be formed; he could not be kept waiting indefinitely outside its door. No "war plans," even those of the most eminent statesman, would be laid before the assembled "war cabinet," that had not first been examined and passed by him and his assistants.

In monarchical Prussia of 1870 the chief of the military general staff, though kept within certain political restraints by a powerful chancellor, could take sole charge of the war on land. The king was in the field as nominal commander-in-chief, accompanied by the war minister, himself, of course, a soldier; but the form of taking orders or advice from the one or the other, though outwardly observed, did not in the least derange von Moltke's plans. This example, closely followed by Germany in the Great

War, might be cited as a warning; since, even when chiefs of naval and air staffs had been added to the war organisation, a masterful "Quartermaster-General," carrying the Commander-in-Chief along with him, could determine the direction and nature of the whole national effort. The fundamental British "principle" of civil control owes its origin to the desire to prevent the rise of such military dictators; but it is questionable whether, in avoiding this danger, the "principle" does not entail its opposite, the conducting of wars by dictators of another kind.

As regards the making of plans and preparations in advance for every kind of war into which the Empire might in future reluctantly be forced, it would manifestly be impossible for any "thinking Department," however brilliantly staffed, to complete such a vaguely enormous task. In 1912 it was comparatively easy for the Committee of Imperial Defence to consider "every possible form of enemy attack on the Empire,"¹ since the enemy could be no other than Germany. That fact, and the existence of the "Entente," gave a background on which the Admiralty and War Office staffs could, and did, work. The definition of that background has to-day become blurred by the kaleidoscopic combinations of "collective security," and the various international "pacts." Apart, however, from any Gèneva or Locarno commitments, there are only some two or three practicable combinations of the Great Powers for war; and each of these would carry certain definite alliances. Any such alliance, if it included Great Britain and the Empire, would afford the necessary background for the work of a "joint staff;" and if the chosen ally, or allies were reliable and prepared, speculation about the number, strength, and purpose of other Powers would be comparatively simple. It is quite otherwise with "collective security;" the planning or preparation of a combined war of "sanctions," against some as yet unknown "aggressor," would be a nightmare labour, resembling the task of an "international army" staff whose care it would be to ensure that the League's war included everybody.

The "co-ordination" above mentioned appears to be regarded by many as synonymous with "co-operation;" which, too, is commonly supposed to be almost a closed book to the Service mind. Hence the frequent advocating of a "Defence Ministry;" which, through some concentration of thought on the part of its civil heads, would ensure that all three Services in future work together. Co-operation in the conduct and direction of war is, of

1 "Adventure." Major-General Seeley.

course, one thing, co-operation in battle another. The first can be achieved on the "home front;" and in it a "joint staff" would take a leading part. By November 1918, both kinds of co-operation had reached a high pitch of efficiency; but whereas to-day co-operation of the Services in action is constantly studied, and practised in peace manœuvres, the basis of national co-operation has not yet been determined. Examples of what can be attained in this respect by other nations to-day are not far to seek.

So long as there is no definite "background" to defence policy, the recurring problem of apportioning to the Services their shares of the exchequer grants will remain almost insoluble. In these grants the general staffs, of course, have never had the last word; and probably no process of "co-ordination," and not even a "joint staff," could extract from an economising Government more than is ordinarily obtained by the individual chiefs of the State departments. In Great Britain the totals of these grants are partly determined by a variety of political and financial considerations, other than those of national defence; and thus the only real test of their adequacy or otherwise is that of actual war.

Should Great Britain become again involved in an "absolute" continental war, unprepared in resources or organisation for national co-operation in conducting it, the old scrambling competition between the Service departments for their shares in whatever is available would certainly recur. The general staffs would know well what they required but not necessarily how or where to get it; and even the efforts of a "joint staff" would not suffice to stir immobilised industry into the necessary rapid expansion. To-day the creation of another Ministry, to organise war-time supply of materials of all sorts, might result in a closer liaison between industry and the administrative sides of the Service departments, and to that extent control them; but there its usefulness would end. A "Ministry of Defence," on the other hand, would probably only illustrate afresh the vitality of the "constitutional principle;" its powerful political head would hardly resist the temptation to dabble in the strategic plans of the "joint staff," or to claim precedence over its "chief" in offering advice to the Government. In peace-time the danger of such interference would not be generally apparent; but of the unfortunate effects, in the conduct of past British wars, of inexpert usurpation of professional functions, there are many and tragic examples.

COLD STORAGE FOR INDIA

THE ARMY GIVES A LEAD TO COMMERCE

BY MAJOR A. E. SWANN, R.I.A.S.C.

For some years it has been realised that the system of supply of meat to the Army in India is not such as to ensure a standard of really first-class quality, and moreover that it lacks the elasticity necessary for prompt expansion and regular deliveries to the troops in war. The congestion on the Lines of Communication which would result from attempting to send forward large herds of cattle, sheep and goats for slaughter in the immediate rear of the area of operations is not difficult to imagine, particularly when it is realised that the number of animals of the various categories may easily run into several thousands each day. This is one of the major disadvantages of the present system, but there are numerous others. The quality of the meat, seldom very good even in the best cattle areas owing to lack of attention to feeding, is adversely affected by long, forced marches; the system is expensive, and as the slaughtering arrangements cannot be centralised most of the valuable by-products of slaughter are wasted or disposed of at uneconomic prices; adequate veterinary supervision and scientific meat inspection are impracticable. These and other disadvantages of the present system could be further elaborated if space permitted, but enough has been said to make it obvious that the continuance of the present system would be an anachronism in a modern army. Modern armies require modern methods, and improvements in systems of food supply and "Q" arrangements in general are only secondary in importance to the modernisation and efficiency of fighting units.

The need for change was obvious. But grave difficulties had to be overcome before a radical alteration in the system of supply of perishable foodstuffs could be contemplated in a country with a tropical climate. To improve the standard of meat and render it uniform, and to ensure adequate inspection and supervision, a centralised abattoir was obviously the only solution. But in order to distribute the meat after it has been prepared, it would be necessary to freeze it; subsequently it would have to be transported

by rail and road in refrigerated and insulated vehicles, and in addition the requisite reserve stocks of meat would have to be held in the various military stations in cold storage. These refrigerated transport and cold storage facilities did not exist in India, and the capital expenditure which would have been involved if their provision was contemplated by the army would have been beyond the capacity of the Army Budget. Moreover, it seemed obvious that if these modern conveniences were provided by the army, there would shortly follow a demand for similar facilities by the civil population. As the army cannot legitimately trade, duplicated transportation and storage facilities would be the ultimate result, and in the long run the heavy capital outlay on the part of the army would have been a sheer waste of money. It seemed, therefore, that any drastic alteration in the system must await civil development, and that when this had occurred military and commercial projects could go forward hand in hand.

The army problem was, however, a pressing one, and there were no very encouraging signs of even a commencement of commercial interest in the subject of refrigeration. Such cold stores as existed in the ports were, with few exceptions, far from being models of modern efficiency, and were mainly operated by small firms, whilst the only so-called refrigerated transport vehicles in existence were the railway cars, cooled with water-ice, used mainly for the transport of fruit. These vehicles were unsuitable for the conveyance of frozen meat, which requires to be transported at a temperature between 10 degrees and 16 degrees Fahrenheit, a state of coldness which cannot easily be secured and reliably maintained by ice or a mixture of ice and salt. The Railway Board was disinclined to undertake the provision of modern refrigerated vehicles at its own expense until assured of a commercial demand, whilst commerce, on its side, hesitated to invest capital in costly cold storage schemes because of the lack of adequate transport, without which such enterprises could not be successful.

Thus, pressed for the solution of its own urgent problem, the army was forced into independent enquiry and action, with the object of proving to the trade and the railways that valuable business awaited their joint enterprise. This was an unusual line for the army to take, but appeared to be the only practical way of

getting all the interests together and ensuring an early start for a project already considerably overdue.

Once this policy had been decided upon, the army was not slow to act. Preliminary plans for the construction and operation of a central abattoir were drawn up by an expert brought out from England for the purpose, and the same authority was then commissioned to tour the country and to provide a detailed report on the possibilities of success for cold storage and refrigerated transport in India, if backed with the army business as a nucleus upon which to build up commercial traffic. This report was most encouraging and showed clearly that there was a large amount of business awaiting the development of improved storage and transport facilities. It contained sufficient information to reassure the army that it could safely go ahead with its plans for the construction of a central abattoir, and that commercial interests would step in to relieve it of the burden of additional capital outlay for cold storage installations and transport.

It was now tolerably clear that the only major item of capital which the army would be called upon to provide in order to launch the scheme would be the sum required for the construction of the central abattoir. There was little hope of being relieved of this item, as there was no clear market either in India or overseas for frozen beef and mutton. The army, therefore, prepared to shoulder this heavy initial item of expenditure and to operate its own meat factory in much the same fashion that it now manufactures many of its requirements in the various ordnance factories. The burden was the more readily shouldered because it was realised from the expert's report, and also from reports received from abattoirs in England and other countries, that modern factory abattoirs run on sound lines were veritable gold mines for their owners. Their primary object was the provision of good quality meat. This could be fairly easily and cheaply achieved by systematic fattening of herds during a period of intensive feeding before slaughter; and the cost of this feeding need be no deterrent, for, provided that the feeds given were of the correct protein value, every penny put into this fattening ration returned a handsome interest in the shape of a greater outturn of meat per animal. During the process of preparing the meat in the abattoir, a quantity of material, which was previously neglected or sold for very

little to anyone who would take it away, could now be collected in quantity and converted into saleable and often highly profitable by-products. Skins, scientifically removed with modern flaying devices, were convertible into first grade leather and would realise much higher prices than under the old methods; bones, horns and hoofs could be converted into valuable fertilisers and bone meal, dried blood could be very profitably marketed, sausages, tongues, meat extracts and the like could be produced cheaply for sale to the soldier, whilst the army would be in a position to manufacture its own bully beef and thus effect a further substantial economy.

Plans for the abattoir were, therefore, elaborated in some detail, the case for its construction was put up and the necessary funds in due course secured. Meanwhile work proceeded with the object of encouraging commercial interests to cope with the problem of cold storage and refrigerated transportation. It was decided to limit the scheme in its opening phase to the supply of beef to the British troops in Northern India, but to make due allowance at every step for the expansion of its scope, so as eventually to cover the whole of India, and to deal with supplies of meat for British, Mohammedan and Hindu troops both in peace and war.*

During the progress of the tours undertaken by the Expert on behalf of the army, the attention of the trade was drawn to the subject of cold storage and much interest aroused. Subsequently the army requirements were published in the press and firms interested were given the fullest possible information. For reasons of standardisation and ease of operation and accounting, it was obviously desirable from the army point of view to have one contract for the whole chain of cold stores envisaged in the scheme, rather than a number of separate contracts in different stations; indeed, it can be safely estimated that piecemeal arrangements would be most unlikely to prove satisfactory and would in all probability be little less objectionable than the antiquated system they would be intended to replace. It was considered that to ensure success it would be essential to have all the stores under a centralised control and that, moreover, the closest liaison and co-operation between the Cold Storage Company, the transportation

* When such extension is contemplated, elaborate separate slaughter arrangements to satisfy caste and religious requirements will naturally be incorporated, and meat for Indian troops will be handled at every stage in a manner which will satisfy all scruples.

agency and the military authorities would be of the greatest importance.

This requirement limited the commercial interest to two or three large firms which possessed the necessary experience, organisation and technical ability to undertake a development of the size contemplated.

The making of the necessary agreement with the firm finally selected was not the simple matter of routine which most of our army contracts have become. Here was an entirely virgin industry. No one in India had ever made a similar contract, and it is doubtful if any real parallel could be found anywhere. The nearest approach to an analogous document was a contract for cold storage of butter concluded by the Government of New Zealand, and this proved of great assistance. It could not be slavishly followed, as the arrangement contemplated for cold storage of the army frozen meat held many complications which were beyond the purview of the butter contract. The matter required considerable concentration and study on both sides, assisted by the solicitors of each party, before the agreement reached its final form, in which it is hoped that all contingencies have been covered and no serious loopholes remain.

Under the terms of this contract, which has been concluded for a period of fifteen years commencing on the 1st April 1938, the Cold Storage Company of India, Ltd., agrees to erect and maintain cold storage depots at Quetta, Multan, Mari Indus, Kohat, Bannu, Razmak, Manzai, Wana, Thal, Peshawar, Nowshera, Rawalpindi, Ambala, Sialkot, Jullundur and Ferozepore. Certain specified space in each of these depots is to be reserved for army meat, or other perishables, on a scale sufficient to cope with the calculated war requirements. The whole of this space will not be required by the army in peace, and such space as is surplus to army requirements may, therefore, be re-let by the company to commercial users. The army obtains a rebate of rental for all such re-let space, and the company is obliged to dispose of all army surplus space before utilising any separate space of its own for commercial purposes. In this way it is hoped that the army will be relieved of considerable expenditure in those stations where there is a demand for cold storage. The rates which the army has been able to obtain are very favourable ones, for the company had the business fore-

sight to realise the immense value of the military business as a nucleus upon which to build, and in order to secure it, were willing to offer terms which could only be profitable when taken in conjunction with a volume of civil trade which would be handled at more favourable rates.

Concurrently with the negotiations for the cold storage contract, work was proceeding on both the abattoir and the transportation sides of the project. A contract was concluded with an abattoir expert for the complete planning of the abattoir and its machinery. The completed plans are expected in India shortly, and it is hoped that building will commence at Shahjahanpore in the early part of 1937.

Considerable thought has been given to the subject of transportation with a view to discovering which of the many apparently excellent modern methods of refrigeration should be adopted on rail and road. Extensive enquiries have been made and voluminous reports on every conceivable system, with great wealth of detail, have been received from numerous interests in England, and various European countries, and in particular from the United States, where the British Embassy has been most active and thorough in prosecuting enquiries. As a result it is abundantly clear that no one method can claim to be the best, or even the best suited for India, and that without actual demonstration of various different methods and types of equipment in this country, it would be inadvisable to decide on the adoption of any particular system of refrigeration or type of equipment. Arrangements are, therefore, being made to try out various types of refrigerated rail vehicles early next hot weather.

For the conveyance of army meat requiring a low temperature, the problem would not be very difficult. The difficulty arises from the fact that in order to ensure the existence in peace of the necessary refrigerated transport for war expansion, the army would prefer to adopt a system of refrigeration and type of equipment which will appeal to commercial users. Moreover the army does not wish to purchase and operate rail vehicles if this can be avoided, and, as in the case of the cold storage contract already concluded, is quite willing to offer its business for both rail and road transport to a firm capable of guaranteeing the requisite service on reasonable terms. Such a combination of military and

commercial interests would, it is felt, react favourably on the military budget in peace and ensure the means of war expansion far more cheaply than by other methods.

With the forging of this third link—refrigerated transportation—the chain will have been completed, and the first phase of the new system will come into operation. Once cold storage facilities have come into existence in the north of India—entirely due to the instigation of the army, be it noted, and as a result of original investigations conducted at its expense—there is likely to be a demand for similar facilities throughout the country. The new industry is bound to develop once it has obtained a foothold, and it is the intention to take advantage of this development as it occurs and progressively to extend the scope of the army scheme.

In conclusion, a word on the subject of the potentialities of commercial development may not be out of place, for it is sometimes imagined that cold storage will only be utilised for the luxury items of diet for which there is a very limited market. This is felt to be very far from the truth. When it is considered that at the present time in this country thousands of tons of fruit and vegetables are produced during a short season and have to be disposed of immediately at any price, simply because it is impossible to conserve them or transport them to other markets, the fallacy of this view becomes obvious. A large movement of these commodities is to be expected, and Indian grown grape fruit, oranges, apples, pears, peaches and grapes should be available throughout the year instead of being restricted to short seasons, leaving the market for the remainder of the year open for imported produce. Mangoes and strawberries may each expect a longer season and a wider distribution. Vegetables should be available everywhere in far greater variety than is the case at present. Fish from the seaports will rapidly find its way into the remotest corners of the interior, and a considerable movement of milk and other dairy produce is likely. Furs and carpets may clamour for insect-free cold storage space. With the central military abattoir to point the way, it seems reasonable to suppose that sheep abattoirs may be encouraged to develop in such areas as Baluchistan and the North-West Frontier Province whence succulent mutton may find its way to the big markets of the Presidency towns to replace the scraggy joints one is familiar with. Incidentally a development

of this nature would be of interest to the army, as it would provide a supply of frozen mutton for use in hospitals and probably also for issues to Mohammedan troops; and at the same time would offer a back load for some of the transport utilised for the conveyance Northwards of frozen beef. The potential uses of cold storage in India are indeed legion, and though the industry may not make astonishing headway at the very outset, it seems tolerably safe to conclude that eventual success and considerable development are certain, and that they will bring in their train increased prosperity for India. Such progress is long overdue, and that it is at last clearly in sight must be set down to the credit of the army.

A FEW NOTES ON REGIMENTAL SOLDIERING IN THE INDIAN ARMY

BY "SHIGGADAR"

In his article entitled "An 'Alter Ego'" "Forest Creek" has produced some very sound arguments, and I agree with the conclusions he arrives at that in the Indian Army there is plenty for the Second-in-Command to do without his being burdened with the command of a Company.

C.O.s vary considerably in the use they make of their Seconds-in-Command, but if the C.O. is a wise man this very valuable officer need never be at a loose end for a job and can, if he is worthy of his position, be of immense assistance, both to the C.O. and to the battalion as a whole. In the hot weather, if both C.O. and Second-in-Command are present (which they seldom are) and other officers are very short, the latter can always assist by taking over the administration of one of the companies if the C.O. wishes him to do so, but on principle it is unsound and should never be done during collective training.

To what extent this officer is employed on tactical training depends of course on the extent of the C.O.'s confidence in his tactical ability, but provided he is a sound man with common sense (as he should be), he and the C.O. will be "The good companions" of the regiment; they will help each other with the tactical training of the whole battalion, and together they will co-ordinate such training. This co-ordination, as "Forest Creek" points out, is a vital necessity, but it is often overlooked and though "Forest Creek" says he has never known a battalion run on Soviet lines, the following case will show that such do exist.

Some years ago I was discussing Frontier warfare problems with a company commander of an Indian battalion and was endeavouring to find out the methods employed in his battalion with regard to various minor details. To each of my questions he replied, "In my company I do so and so." I thought this rather strange, and that evening I met a staff officer who knew the regiment intimately and asked him why the company commander had told me each time what he did in his company, as opposed to what was done in the battalion as a whole. He said that owing to the fact that the last two C.O.s had been away from regimental

soldiering for years and were more or less strangers to the battalion, it was in actual fact run by a Soviet of company commanders. Outwardly it appeared to work all right, for the battalion was a good one and managed to "keep its purdah"—chiefly because the company commanders happened to be a very good lot—but such a system is obviously wrong and, as "Forest Creek" points out, training should, and must, be co-ordinated, and company commanders, however much freedom from interference they are allowed, must train on the same sealed pattern, no "jims" or funny tricks being tolerated.

"Forest Creek's" suggestion that the Second-in-Command should hold special tactical cadre classes for N.C.O.s is a sound one, but personally I always prefer to combine tactics with other subjects in the syllabus of the ordinary cadre classes. Opinions vary very much about cadre classes in general: some units hold separate classes for each subject, while others combine several subjects in one class. I prefer the latter, and I think that a series of short classes in which several subjects are combined and in which the maximum number of N.C.O.s are exercised are much more valuable than a few long courses in separate subjects; for it is only thus that your N.C.O.s can systematically receive the extra training and instruction which they require and which, in some units, they seldom get. "Cadre class" is really a misnomer, as such classes are in reality N.C.O.s' refresher courses.

We have all in our time expended considerable energy and thought in working out intricate programmes for the individual training season, but to what extent has it ever been found possible to carry such programmes out in practice? I have always found that, during the hot weather, what with leave, butt fatigues and other duties, the only training of real value that it is possible to carry out thoroughly is weapon-training and the training of specialists and N.C.O.s, and it is on these three that I have endeavoured to concentrate during the individual training season. A detailed programme for weapon-training, specialists' classes and short refresher courses for N.C.O.s is in itself a complicated affair, but if it is worked out carefully and instructors are detailed by name for each class, it can be carried out with most beneficial results.

Although the responsibility for the tactical training of the N.C.O.s rests with company commanders, it is impracticable to

expect them to train their N.C.O.s in tactics during the hot weather; they have far too many other things to do and they should not be doing two things at the same time. This is where the C.O. can help; *viz.*, by training N.C.O.s in tactics as well as in other subjects under battalion arrangements, the companies not on leave of course finding the necessary instructors.

I entirely agree with "Forest Creek" about the Adjutant being a junior, rather than a senior officer. If the C.O. knows his job, a junior officer of ability can easily do the work required of an adjutant, and a senior officer is much more usefully employed in commanding a company. Moreover, a senior adjutant is always inclined to take upon himself the rôle of a Dictator, thereby clashing with company commanders and causing discord in the battalion. Only an inefficient or weak C.O. will require the assistance of a senior adjutant to prop him up.

Then, in the hot weather there are T.E.W.T.s to be got through, either under direct orders from higher authority or at the discretion of the C.O. Many people like T.E.W.T.s; to others of meaner intelligence they are the *pons asinorum* of soldiering; but they have got to be done and if they are kept sufficiently simple they can be very interesting. Personally, if the matter is left to the discretion of C.O.s, I would suggest a battalion T.E.W.T. for B.O.s and V.C.O.s once a fortnight during the hot weather, each T.E.W.T. being prepared and carried out by a different B.O., from the Second-in-Command down to the junior subaltern. This gives every officer practice in carrying out a battalion T.E.W.T., and if the programme is worked out at the beginning of the hot weather so as to ensure that B.O.s will be present, and not employed on weapon-training, on the dates fixed for them to hold their T.E.W.T.s, the thing works automatically and with the minimum trouble to the C.O., who, after all, is the man who shoulders the whole responsibility for the training and efficiency of the battalion and who deserves a rest, as far as such be possible, during the hot weather.

Another item of training which I advocate during the hot weather (particularly in the north of India) is "night ops."

There are few of us in the Army who do not hate "night ops" and who have not painful recollections of wintry nights spent stumbling about in the dark, and perhaps in the pouring rain. My first experience of night operations was at a public school

camp, when on a pelting and pitch-black night I fell headlong through a hedge into a six-foot ditch. And so it has been throughout my service, a black and gloomy chapter of noisesome recollections. Nevertheless night operations are necessary, very necessary, as we all know, and I suggest that some of the physical pain and grief of the northern India's winter night can at least be avoided if part of the training in night work is done during the hot weather, instead of being left, as it usually is, to the coldest and bleakest winter months.

And so to bed.

THE NIGERIA REGIMENT

By CAPTAIN W. G. HINGSTON.

The work of a Company Commander in the Royal West African Frontier Force differs in so many respects from that of a Company Commander in India that it may be of interest to officers in India to be able to contrast the two.

The Royal West African Frontier Force consists of units in the four West African Colonies. In Nigeria there are six battalions of Infantry, a Light Battery, a Depôt, a Signal School and Headquarters. On the Gold Coast there are two battalions of Infantry. In Sierra Leone there is one battalion of Infantry and a maintenance party for the Freetown defences. And in the Gambia there is one company of Infantry. The Officer Commanding this last unit must have one of the most independent commands open to British officers, for the mail boat only calls in at Bathurst once a month, and he deals direct with the Colonial Office on all matters of administration and training. Theoretically, officers may be transferred from one colony to another, but in practice this is very rarely done. The writer was in Northern Nigeria, and will deal with that colony only, but all the other units are run on the same lines with only minor differences to suit local conditions.

Officers and non-commissioned officers are seconded from their British units for tours consisting of eighteen months in the country, together with eighteen weeks' leave plus the time for the voyage out and home again. In all, this amounts to just about two years for a tour, and the limit is three tours consecutively. The Colonial Office treats its servants very well in every way. Although there are regulations to cover all occasions, cases are treated on their merits, and in consequence there are very few genuine grievances. In particular there is a lack of petty restrictions and "red tape."

The rank and file are locally recruited, but only certain tribes are suitable. In Nigeria only the inhabitants of the hill districts or from the sub-desert areas are taken. There are no native officers, the highest rank being that of sergeant-major.

The first great difference between troops in other parts of the world and African troops is in the matter of housing. Each

soldier has a hut and a kitchen to himself, and in this he lives with his wife, children and "barricki boy." The latter is a boy, frequently a younger brother, who in return for his food and housing, cleans the soldier's clothes and equipment and keeps the lines clean. The African is most incontinent, and cannot live without his wife, while for that matter nor can the wife do without her man. Whenever the troops are away on trek or in camp for any length of time there is trouble with the wives in the lines. In charge of the women is one of the senior wives, called the "magajia," who wears a sergeants' sash and exercises very considerable authority. She receives pay at the rate of five shillings a month.

Every Thursday the Company Commander hears "Complaints" in the Company Office. On these occasions any man with a request to make is allowed to ask the O.C. personally. No man may keep a wife in the lines without permission. On these occasions he arrives at the office with his future bride. She is brought into the presence by the Magajia, and there she sits on the ground awaiting a decision. The Company Commander has a look at her, notices her tribal marks, and asks the Magajia if she is all right. Known prostitutes are not allowed as wives, and other reasons are also sometimes found for refusing the request. The woman is issued with a leather ticket, which has to be produced on demand. For bad behaviour in the lines there are two punishments; either the husband is fined, which usually has a salutary if painful effect on the wife, or she is turned out of the lines.

Except on active operations or while at Camp-of-Exercise, a soldier does not receive rations. Instead he draws subsistence allowance at threepence per day, and feeds himself. On this he can, in some stations, support himself and his wife; but in others he has to supplement it from his pay of one shilling a day. When on the march away from towns, he can easily feed for less than a penny a day.

In outstations the Company Commander is also responsible for the upkeep of barracks, offices and Europeans' houses. These are in most cases made of mud with thatched roofs. He has to estimate the annual cost of these repairs and is allotted a sum for this purpose. Owing to the ravages of white ants, every building has to be completely re-roofed every year, while a certain number have to be pulled down and rebuilt. Troop labour can be used

for some of the work, but most has to be done by local natives. So the Company Commander has to make contracts, supervise the work and buy materials in addition to his other duties. The roofs are made of long bamboos lashed together and thatched with the long tropical grass. They are rain proof, except against exceptionally heavy tornadoes, and they are far cooler than corrugated iron or mud roofs.

An officer's house is of no fixed pattern or plan. Probably no two are similar in the country, as each depends on the whim of its builder. Each occupant has his own ideas of comfort, and he can make additions or alter the inside plan just as he desires. Every year some improvement is made in the way of making stone floors, putting in home-made baths, or fitting in door or window frames. But then the time arrives when possibly a wall shows signs of weakness owing to the action of rain and white ants, and the whole house has to be re-built.

When all buildings have been completed, there may be a balance credit left in the account. The Company Commander can use this for what he wishes, such as improvements in the offices, magazine or guard room, or for putting up new buildings such as stables or drill sheds. All money has to be accounted for and credit balances returned, but the system of accounts is very simple and queries are not common.

The usual complement of a company is two officers and one British non-commissioned officer, although this may vary considerably. As the African soldier can neither read nor write, and very few speak English, there is a large amount of office work. But correspondence throughout the regiment is reduced to a minimum; there is far less than in either a British or an Indian battalion. The Adjutant is also Quartermaster of the battalion, but Company Commanders deal direct with the Area (Brigade) Quartermaster for stores, clothing and equipment. Each company keeps a few sets of clothing, a full set of permanent stores, and the kits of the reservists of the area, and so it is enabled to move at very short notice without having to deluge the Area Quartermaster with indents. Although this method increases the responsibility and the work of the Company Commander, it is the only workable method in a country where distances are so great and transport so slow. There is no clothing allowance for soldiers.

Each article of clothing and equipment has a "life" allotted to it, and at the end of the period a new garment is issued.

Venereal disease is rife in Africa, and great efforts are made to keep the disease in check. Each company has an Early Treatment Room in its lines, and there are penalties for soldiers contracting the disease. The main difficulty is to get the soldier to realise that the matter is serious. By him it is looked on as a necessary evil; in one tribe there is a belief that a man cannot procreate without having been infected. Otherwise there is little sickness among the troops. On the other hand the climate is very bad for Europeans. The days of the "White Man's Grave" are past, but the country is still very far from being a health resort. Malaria, dysentery, yellow fever, blackwater fever and sleeping sickness are the chief scourges, but the climate itself is most exhausting. By the time that leave is due, the majority of Europeans are both mentally and physically tired out; this is locally known as "end-of-tourish." The heat does not compare with that of India, but there is no cold weather. During the winter a strong, very dry, dust-laden wind blows off the Sahara, and for three or four months the visibility is rarely over four hundred yards. This *Harmattan* wind is very trying to Europeans, making for great irritability as well as cracking the skin and causing boils. As in outstations officers and British non-commissioned officers live and feed by themselves, the Company Commander has to ensure that all are taking their proper precautions and that they are feeding themselves properly.

The native soldier is enlisted for six years service with the Colours and three years with the Reserve, and he can extend his service by periods of three years up to a total of eighteen years. He gets no leave for his first six years, but thereafter he is entitled to three months' leave on each re-engagement, plus the time necessary to get to his home and back. As this may take up to a month each way, the reason for the scarcity of leave can be understood.

The official language of the regiment is Hausa, which is the *lingua franca* of the Sudan from Senegal to Khartoum. This is not a difficult language, but the construction is very different from the majority of languages. The verb is conjugated by changing the preposition, the verbal infinitive being used throughout. All officers have to pass a test in their language during their first tour. A few officers also take the Lower Standard Examination, which is about the equivalent of the Urdu Higher Standard Examination.

There is neither mechanical nor animal transport in the regiment. The latter is barred by the prevalence of the tsetse fly, while there are not yet sufficient roads to justify mechanical transport. All loads are headborn. Machine guns, Lewis guns and mortars each have their complement of trained enlisted carriers. For instance, a Lewis Gun Section consists of one Native N.C.O., six privates and six carriers. Even the Light Battery carries its guns, the only headborn battery in the world. Men of exceptional physique are enlisted into the Light Battery, and it is a magnificent sight on the march.

As the normal method of travelling is on foot, the troops are exceptionally good marchers. The other specialities are drill and musketry. The shooting is of a very high standard indeed; the clearness of the atmosphere in the summer helps this, but during the winter no firing can be done. The drill is up to the standard of the Guards, and there are a number of non-commissioned officers from the Guards in the regiment.

The life in Northern Nigeria for British officers is the best in the world for those that like it. There can be no half measures about it; either it is heartily disliked or one leaves one's heart there. The complete freedom is one of the greatest attractions, but anyone desiring a social life or the joys of the cinema had better not go to the country. Polo is the premier game and every officer is expected to play. It is ridiculously cheap; four or more ponies can be kept on the pay without stinting in any other direction. There are five major tournaments in various stations, as well as local tournaments. The racing is very popular and is not expensive. Big game shooting is poor compared with East Africa, but is far better than India. "Beef" can be shot within five miles of most stations (an officer at Maidugari got an elephant before breakfast the other day), and bird shooting is excellent. No large *bandobast* is necessary for shooting, and there is no expense except cartridges and an occasional "dash" of threepence or sixpence to a native helper.

The African soldier is a delight to serve with. Very keen, he is always cheerful, even under the most dismal conditions. He has a great sense of humour, is devoted to his officers and gives very little trouble in the lines. The Nigerian troops gained a great reputation in the Cameroons and East Africa during the Great War. The German Commander in East Africa, Von Lettow

Worbeck, who probably put up the finest show of any commander on either side during the war, says in his book on the campaign that "the Green Caps" were the most respected of all the many different troops brought against him.

LETTERS TO THE EDITOR

Dear Sir,

The past few years have seen many discussions, in this and in other journals, on the subject of how best to train the infantryman in the use of his rifle for modern war, but none of these accords more closely with my somewhat heretical views than those contained in Major Bower's article in your last number. In my view he rightly stresses the increasing necessity for the rifle section being a machine for concentrated fire in the hands of the section commander; for the latter to be skilled and practised in directing fire, and for the section to be trained and experienced in carrying out good "grouping" on the targets indicated.

The majority of infantrymen agree with this generally. We all agree that rifle range shooting preponderates too heavily at the expense of firing under service conditions. Where we differ is the extent to which we are prepared to go to redress the balance. I am prepared to go even further than the author whose article has prompted me to write this letter. Before giving a brief outline of my views, let me touch upon the conditions of modern European battlefields as I see them. In this picture lies the reason for my extremist views.

We infantrymen must not forget that automatics have doubled and trebled since the Great War. The attack task of an infantry battalion in open warfare to-day might be described as overrunning an area as large as a couple of 18-hole golf links laid parallel side by side, where every putting green is an automatic weapon. The gunners may have a lucky shot here and there but, with the small artillery weight behind, little more can be hoped for. If conditions are favourable we might get considerable help from smoke shells. And as we cannot rely on tanks being available it really boils down to this; the platoon and section must be prepared to encounter six or eight automatics in depth which they themselves must be prepared to silence before winning through. If the enemy automatics have been properly trained they will hold their fire until a worth while target appears. That may be "finis" for the unfortunate target, but adjacent sections have now to return the compliment and they can do it only by one means, *i.e.*, concentrated fire from relatively close ranges skilfully directed.

A relevant point here is *TIME*. It enters more and more deeply into the modern tactical battle. Infiltration tactics owe their great success to a recognition of this factor. The position is that the deeper we penetrate into the modern defence in depth the less static it becomes. Rearward elements have alternative tasks and alternative sites and it is for the attack to press on in order that these elements may successively be anticipated before they can undertake any task or reach any site, and this applies whether we are considering a company reserve or the divisional reserve. The tactics of infiltration achieve this anticipation.

And so we get the basic problem for solution—"How can the riflemen take on and defeat the successive automatics which will be encountered *in the shortest time*?" Our own machine guns and automatics may help, but only if they know where the particular centre of resistance is. Unfortunately no one ever seems to know this *within reasonable time* except the most forward elements. If the attack is to swing forward at the pace which will give real tactical victory no undue pause is possible. The forward elements—usually riflemen—must take on and silence the automatics; some sections must give concentrated fire whilst others stalk and assault.

Many will disagree with my picture and will quarrel with my tactical conceptions. Some might even contend that, in the circumstances I envisage, infantrymen could not progress at all by means of their own weapons. I certainly disagree with the latter. But assuming there is something in my picture and my tactics, what are the requirements? Precisely what Major Bower suggests—(i) The section leader well trained and experienced in fire direction and control under battlefield conditions and (ii) the rifle section trained as a machine to apply concentrated fire over battlefield terrain.

Mr. Editor, I apologise for being so long-winded. This started as a brief letter, so permit me to give my views on the appropriate basis for modern rifle training in summary form:

(a) Once a man has been taught to use his rifle he should not be asked each year to relearn all over again. After the first year, range shooting at targets should be restricted to those men who have yet to learn.

(b) If the annual rifle training with ball is to be crowded into 14 or 20 days out of the 365 days in each year then the rifleman must be retaught every year. Why not spread the firing over

the majority of the year? Could not the rifleman be exercised on a system based on his having to fire a minimum proportion of his annual S.A.A. in periods which would cover the major portion of a training year? For example, if conditions, owing to furlough and manœuvres, only permitted a spread of firing over 8 months of the year, Private A or Sepoy B might have to conform to some such programme:

April-May	...	20 %	of his yearly S.A.A.
May-June	...	20 %	" " "
July-August	...	30 %	" " "
September-October	...	35 %	" " "

(c) Lastly, after an initial zeroing of rifles and the minimum firing to test individual efficiency, get the men off the range and spend the bulk of the S.A.A. in the field firing area. Let the section commander have his chance to assume in peace the task that will be thrust upon him in war.

Let us bid farewell to a system based on bulls-eye scores and figures of merit; let us introduce realism into our training; and let us keep in mind that no matter how useful supporting arms may be, the infantryman must at all times be prepared to fight forward with his own weapons.

Yours, etc.,
M. STONE.

SIR,

Permit me, through the medium of your Journal to thank Captain Knight for his courteous comments on my article "The City of London and Regimental Privileges" and for the valuable added information.

My remark as to the O.C., The Buffs, of the mid-Nineteenth Century "having chanced it and got away with a case establishing a precedent" was certainly crude. But in the course of much research into these matters I have come across quite a number of assumed privileges having no definite foundation, which the unquestioned effluxion of time has firmly established: hence the remark.

J

I was not aware until the publication of the October edition of the Journal that a second volume of the History of the Buffs had been written. I then wrote to my agents to procure and send me a copy which, unfortunately, had not yet arrived. Pending that may I ask if the letter of the 13th of October 1846, acknowledging the claim of The Buffs to an origin in London, was a *personal* communication or by his *Lordship in Council*, which is a different matter entirely, as the latter would carry a definite acknowledgment for the first time and with it a sanction for the continuance of the privilege.

It was not until the year 1904 that I became aware that this privilege, which I had always supposed to be confined to The Buffs, could be exercised by others. In that year I saw a battalion of the City of London Regiment crossing London from Liverpool Street Station to Waterloo, beating its way along Queen Victoria Street in "panoply of war." I think they were Militia as they wore only caps, and a year later saw a battalion of Guards marching up from Waterloo in the same manner. I then decided to go into the matter some day, but forgot all about it until the march of the Marines awakened the old memory.

Yours faithfully,

CHARLES GREY.

REVIEW

Air Power and Armies

BY WING-COMMANDER J. C. SLESSOR

(Oxford University Press, London, 1936.) 10s. 6d.

This book is not, as has been represented in certain press reviews, concerned primarily with the broader aspects of Air Strategy. The main object is to show the assistance which an air force can render an army engaged in a land campaign; and conversely, the threat to the operations of an army when opposed by a powerful air striking force.

Most of the examples with which the book is furnished are naturally drawn from the Great War; and are used to emphasise "the positive influence which can be exerted by an air striking force in direct attacks upon objectives on the ground" with the object of assisting the army to defeat the enemy army; and it is for this reason that the book deserves to be read by all soldiers.

Whatever form operations by our armed forces may take in a future war, it is certain that the air force will play an important part even in operations where the army may be the predominant partner. Commanders and Staffs will, therefore, be faced with problems affecting the joint employment of land and air forces, and the author's clear analysis of such questions as air superiority, choice of objectives, and the "isolation" of the battle area, as regards reinforcements and supplies, should enable us to avoid the more common pitfalls and make the best use of available air resources. If, in fact, it should prove possible to isolate the battle area in the manner suggested by the author, even for a brief period at the most vital stage of operations, it should help to solve the problem of maintaining the momentum of the attack—a problem which has exercised Commanders for many years.

Another aspect of air action—the attack of communications; and its effect on maintenance in the field, is especially worthy of study.

Since the war the performance and offensive power of aircraft has made tremendous strides, and the possible effects of heavy air attacks on the communications of an army in the field, based on our present maintenance organisation, should compel us to examine the nature of this threat closely, and to make sure that

our administrative system in the field is best fitted to withstand such pressure.

This question is of particular interest to North-West Frontier problems, where maintenance, in the face of a strong enemy air force, would be unusually vulnerable.

Apart from the undoubted value of this book as a stimulant to the examination of problems concerning combined army and air force action, it also provides an interesting study of the employment of the Royal Air Force during the Great War, which fills in the gaps inevitable in the Official Histories.

J. R. R.



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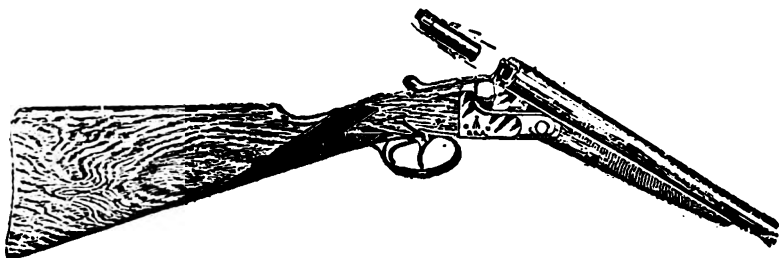
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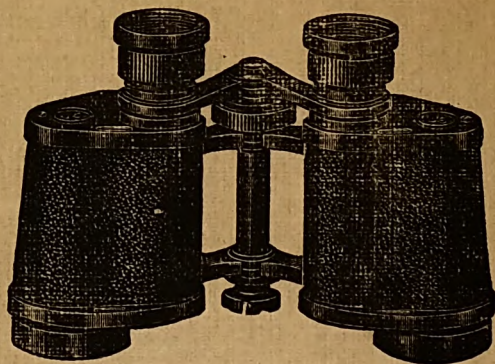
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APRIL, 1937

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The United Service Institution of India is situated on the Mall, Simla, and is open all the year round—including Sundays—from 9 a.m. until sunset. The Reading Room of the Institution

is provided with most of the leading illustrated papers, newspapers, magazines and journals of military, naval and service interest.

There is a well-stocked library in the Institution from which members can obtain books on loan free in accordance with the following rules—

(1) The library is only open to members and honorary members, who are requested to look upon books as not transferable to their friends.

(2) No book shall be taken from the Library without making the necessary entry in the register. Members residing permanently or temporarily in Simla are requested to enter their addresses.

(3) A member shall not be allowed, at one time, more than three books or sets of books.

(4) No particular limit is set as to the number of days for which a member may keep a book, the Council being desirous of making the Library as useful as possible to members; but if after the expiration of a fortnight from date of issue it is required by any other member, it will be recalled.

(5) Applications for books from members at outstations are dealt with as early as possible and books are despatched post free per Registered Parcel Post. They must be returned carefully packed per Registered Parcel Post within one month of the date of issue.

(6) If a book is not returned at the end of one month, it must be paid for if so required by the Executive Committee. Lost and defaced books shall be replaced at the cost of the member to whom they were issued. In the case of lost books which are out of print, the value shall be fixed by the Executive Committee and the amount, when received, spent in the purchase of a new book.

(7) The issue of a book under these rules to any member implies the latter's compliance with the rules and the willingness to have them enforced, if necessary, against him.

(8) The catalogue of the Library has been revised and is now available for sale at Rs. 2-8 per copy plus postage. The Library has been completely overhauled and all books re-classified, hence the new catalogue meets the general demand for an up-to-date production containing all military classics and other works likely to be of use to members of the Institution. Members who have not yet ordered their copies are advised to send a post card to the Librarian of the Institution, Simla.

V.—LIBRARY BOOKS

A list of the books received during the preceding quarter is enclosed in loose leaf form suitable for cutting into strips for pasting in the Library catalogue.

The Institution is in possession of a collection of old and rare books presented by members from time to time and, while such books are not available for circulation, they can be seen by members visiting Simla.

The Secretary will be glad to acknowledge the gift of old books, trophies, medals, etc., presented to the Institution.

VI.—PROMOTION EXAMINATIONS

(a) *Military History*—(Reference I. A. O. 257 of 1935).

The following table shows the campaigns on which military history papers will be set for Lieutenants for promotion to Captain in sub-head *b* (iii), and for Captains for promotion to Major in sub-head *d* (iii), with a list of books recommended for the study of each—

1 Serial No.	2 Date of Examination.	3 Campaign set for first time.	4 Campaign set for second time.	5 Campaign set for last time.
1	October 1937.	Mesopotamia, from 12th March 1917 to the Armistice.	The Russo-Japanese War, previous to the Battle of Liao-Yang until the 24th August 1904 (excluding the actual siege operations at Port Arthur).	..
2	March 1938.	..	Mesopotamia, from 12th March 1917 to the Armistice.	The Russo-Japanese War, previous to the Battle of Liao-Yang until the 24th August 1904 (excluding the actual siege operations at Port Arthur).
3	October 1938.	..	..	Mesopotamia, from 12th March 1917 to the Armistice.

The following books are recommended for the study of the campaigns—

Campaign.	Book.
Mesopotamia— October 1937 to October 1938. ..	History of the Great War—Military Operations—Mesopotamia, Vols. III (Chapters XXXIV <i>et seq</i>) and IV. A Brief Outline of the Campaign in Mesopotamia, 1914—1918. Major R. Evans, M.C. (<i>Sifton Praed</i>).
The Russo-Japanese War ..	Official History of the Russo-Japanese War, Parts I (second edition) and II (<i>British—Military</i>), or Official History of the Russo-Japanese War (Naval and Military). Vol. I, Chapters 1—17 (less 4, 7, 9 and 10).

The campaigns set for Majors, R.A.M.C. and R.A.V.C., up to and including 1937, are published in I.A.O.s 72 of 1935 and 49 of 1936.

(b) *Other Subjects.*

In addition to the manuals and regulations mentioned in K.R. and R.A.I., the following books are recommended—

"Modern Military Administration, Organisation and Transportation" (Harding-Newman).

"Military Organisation and Administration" (Lindsell).

"A. and Q. or Military Administration in War" (Lindsell).

"A Study of Unit Administration" (Gale and Polden).

"Military Law" (Banning).

"The Defence of Duffers' Drift," 1929 (Swinton).

"Tactical Schemes, with Solutions, Series I and II" (Kirby and Kennedy).

"Elementary Tactics or the Art of War, British School," Vol. I (Pakenham Walsh).

"Imperial Military Geography" (Cole).

"Elements of Imperial Defence" (Boycott).

"Changing Conditions of Imperial Defence" (Cole).

"A Practical Digest of Military Law" (Townshend-Stephens. Pub. Sifton Praed).

VII.—*STAFF COLLEGE EXAMINATION*.—[See Staff College, Quetta, Regulations, 1930, obtainable from the Manager of Publications, Delhi or Calcutta.]

(a) Campaigns.

The following campaigns have been set for the Staff College Entrance Examination—

Strategy of—

Napoleon's Campaign of 1796 in Italy.

Waterloo Campaign.

Peninsula Campaign, up to and including the Battle of Salamanca.

The Strategy and Broad Tactical Lessons of—

The American Civil War.

Russo-Japanese War, up to and including the Battle of Liao-Yang.

The Great War in France, Belgium, Mesopotamia, the Dardanelles and Palestine, including a knowledge of the influence on the strategy in these areas of the events in other theatres of the War.

The East Prussian Campaign, 1914.

The Strategy and Tactics of—

The Palestine Campaign from 9th November 1917 to the end of the War.

The Action of the British Expeditionary Force in France and Belgium up to and including the first battle of Ypres.

The 3rd Afghan War, 1919.

(b) In addition to his official books every student is recommended to provide himself with a copy of—

(i) Military Organisation and Administration (Lindsell).

Military Law (Banning).

British Strategy (Maurice).

Notes on the Land and Air Forces of British Overseas Dominions, Colonies and Protectorates (Official).

Outline of the Development of the British Army up to 1914 (Hastings Anderson).

Imperial Military Geography (Cole).

An Atlas.

(ii) The following pamphlets, etc., can be borrowed from the Orderly Room, and should be studied—

Examination papers for admission to the Staff College.

Training Memoranda—War Office.

Training Memoranda—A.H.Q. India.

Notes on certain Lessons of the Great War.

Passing it on (Skeen).

- (iii) Periodicals, etc., to which students should subscribe—
 - "The Times."
 - "U. S. I. (India) Journal."
- (iv) Books which can be obtained from libraries—
 - (Note.—Those marked with an asterisk should be used only as books of reference.)
 - R. U. S. I. Journal.
 - Army Quarterly.
 - Round Table.
 - Journal of the Institute of International Affairs.
 - Science of War (Henderson).
 - Transformation of War (Colin).
 - The War of Lost Opportunities (Hoffman).
 - *The Principles of War (Foch).
 - *The Direction of War (Bird).
 - Soldiers and Statesmen (Robertson).
 - *Historical Illustrations to F. S. R. II (Eady).
 - *In the Wake of the Tank (Martel).
 - *The Re-making of Modern Armies (Liddell Hart).
 - *The British Way in Warfare (Liddell Hart).
 - *Napoleon's Campaign in 1796 in Italy (Burton).
 - *Waterloo Campaign (Robinson).
 - *Outline History of Russo-Japanese War, 1904, up to the Battle of Liao-Yang (Pakenham Walsh).
 - The Campaign of Liao-Yang (Rowan Robinson).
 - *The World Crisis (Churchill).
 - *A History of the Great War (Cruttwell).
 - The Palestine Campaign (Wavell).
 - A Brief Outline of the Campaign in Mesopotamia (Evans).
 - *The Dardanelles Campaign (Callwell).
 - *German Strategy in the Great War (Neame).
 - *Official Histories of the War—France, Egypt, Palestine, Mesopotamia, Gallipoli.
 - *Waziristan, 1919-20 (Watteville).
 - *The Third Afghan War (Official).
 - A. & Q. (Lindsell).
 - Changing Conditions of Imperial Defence (Cole).
 - The British Empire (Lucas).
 - *The Government of the British Empire (Jenks).

- *The Foundation and Growth of the British Empire (Williamson).
- *A Short History of British Expansion (Williamson).
- *Expansion of the British Empire (Woodward).

(v) Books and Articles on Transportation—

- Railways in War. Lieutenant-Colonel E. St. G. Kirke, D.S.O., R.E., *Army Quarterly*, January 1930.
- Strategic Moves by Rail, 1914. *Journal R. U. S. I.*, February and May 1935.
- The Lines of Communication in the Dardanelles. Lieutenant-General Sir G. MacMunn. *Army Quarterly*, April 1930.
- The Lines of Communication in Mesopotamia. Lieutenant-General Sir G. MacMunn. *Army Quarterly*, October 1927.
- History of the R. A. S. C., Vol. II (all campaigns).
- The Supply and Transportation Problem of Future Armies. Major B. C. Dening, M.C., R.E., *Journal U. S. I. India*, April 1932.
- The Supply of Mechanised Forces in the Field. *Journal R. U. S. I.*, 1929.
- The Board of Trade and the Fighting Services. *Journal R. U. S. I.*, 1929.
- Railway Organisation of an Army in War. Lieutenant-Colonel Anderson, D.S.O., R.E., *Journal R. U. S. I.*, 1927.
- What is Required of a Railway in a Theatre of Operations. Major-General Taylor, R.E., *Journal*, September 1932.
- F. S. P. B. War Office, 1932. Read Sections 36 to 38. Do not memorise detail. Know where to find it.
- F. S. P. B. India.

VIII.—SCHEMES, ETC.

The following papers and précis of lectures set for the A.H.Q. Staff College Course, 1935, are available for issue to members of the Institution at the nominal price of annas four per copy, plus postage.

STAFF COLLEGE SERIES, 1935.

Tactical Schemes—

D. M. T.'s Paper No. 1.

"	"	"	2.
"	"	"	3.
"	"	"	4 (without solution).
"	"	"	5.
"	"	"	6.
"	"	"	7.
"	"	"	8.
"	"	"	9.
"	"	"	10.

Précis of Lectures

1. Staff College Examination.
2. Night Operations.
3. Strategy and Tactics. Political Objects in War.
4. Strategy and Tactics. Fog in War.
5. Strategy and Tactics. Gallipoli.
6. Maintenance of Material and Animals.

A.H.Q. STAFF COLLEGE COURSE, 1936.

The stock of complete sets of papers referred to in the notice published with I.A.O.s, dated 18th August 1936, is exhausted, but copies of the papers detailed below may be had at two annas each, postage free.

<i>Item.</i>	<i>Subject.</i>	<i>Serial No.</i>
Notes for officers attending Course	...	1
Lecture ...	Military Writing ...	2
Lecture ...	Artillery No. 1. Characteristics and Organisation ...	20
Lecture ...	S. & T. No. 2. Concentrations and Detachments ...	47
Lecture ...	S. & T. No. 3. Surprise and Security ...	48
Lecture ...	S. & T. No. 4. Communications; Interior and Exterior Lines; Offensive and Defensive Strategy; Fortresses ...	49
Lecture ...	S. & T. No. 5. Some Thoughts on Morale and Leadership ...	50
Paper ...	Transportation ...	60
Solution ...	" ...	61

<i>Item.</i>	<i>Subject.</i>	<i>Serial No.</i>
Lecture ...	"A"—Peace and War ...	62
Lecture ...	Medical Organisation and the System of Evacuation of Casualties in War ...	63
Lecture ...	"O" Peace and War ...	66
Paper ...	Organisation and Administration (Peace) ...	67
Solution ...	" " " " ...	68
Lecture ...	No. 2 Military Law—Offences and Charges ...	72
Paper ...	No. 1. Military Law ...	74
Solution ...	Military Law ...	75
Paper ...	No. 2. Military Law ...	76
Solution ...	Military Law ...	77
Paper ...	Essay No. 1 ...	78
Solution ...	" " " " ...	79
Paper ...	" No. 2 ...	80
Solution ...	" " " " ...	81
Paper ...	" No. 3 ...	82
Solution ...	" " " " ...	83
Paper ...	" No. 4 ...	84
Solution ...	" " " " ...	85
Paper ...	" No. 5 ...	86
Solution ...	" " " " ...	87
Paper ...	" No. 7 ...	90
Solution ...	" " " " ...	91
Paper ...	" No. 8 ...	92
Solution ...	" " " " ...	93
Paper ...	" No. 9 ...	94
Solution ...	" " " " ...	95

IX.—HISTORICAL RESEARCH

The U. S. I. is prepared to supply members and units with typewritten copies of old Indian Army List pages, at the rate of Rs. 2 per typewritten page.

The staff of the Institution is always willing to assist units, authors of regimental histories and members by searching the many old military records in the Library on their behalf.

X.—THE MacGREGOR MEMORIAL MEDAL

1. The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor. The medals are awarded for the best military reconnaissances or journeys of exploration of the year.

2. The following awards are made annually in the month of June:

(a) For officers—British or Indian—silver medal.

(b) For soldiers—British or Indian—silver medal with Rs. 100 gratuity.

3. For especially valuable work, a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the Fund deem it desirable. Also the Council may award a special additional silver medal, without gratuity, to a soldier, for especially good work.

4. The award of medals is made by His Excellency the Commander-in-Chief, as Vice-Patron, and the Council of the United Service Institution, who were appointed administrators of the Fund by the MacGregor Memorial Committee.

5. Only officers and soldiers belonging to the Army in India (including those in civil employ) are eligible for the award of the medal.*

6. The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal.†

7. Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but, in the event of two journeys being of equal value, the man who has run the greater risk will be considered to have the greater claim to the reward.

8. When the work of the year has either not been of sufficient value or has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief to deserve it.

*N.B.—The terms "officer" and "soldier" include those serving in the British and Indian armies and their reserves, also those serving in Auxiliary Forces, such as the Indian Auxiliary and Territorial Forces and Corps under Local Governments, Frontier Militia, Levies and Military Police, also all ranks serving in the Royal Air Force, Indian Air Force, Royal Indian Navy and the Indian States Forces.

†Replacements of the ribbon may be obtained on payment from the Secretary, U.S.I., Simla.

GOLD MEDAL PRIZE ESSAY COMPETITION, 1937

The Council has chosen the following subjects for the Gold Medal Prize Essay Competition for 1937:

- (i) "It has been stated that the Defence of India and of Burma is, from the strategic aspect, a single problem. Discuss the truth of this statement, taking as the basis of your argument the threats which exist to the security of both countries in the world conditions of to-day;"

or, as an alternative subject,

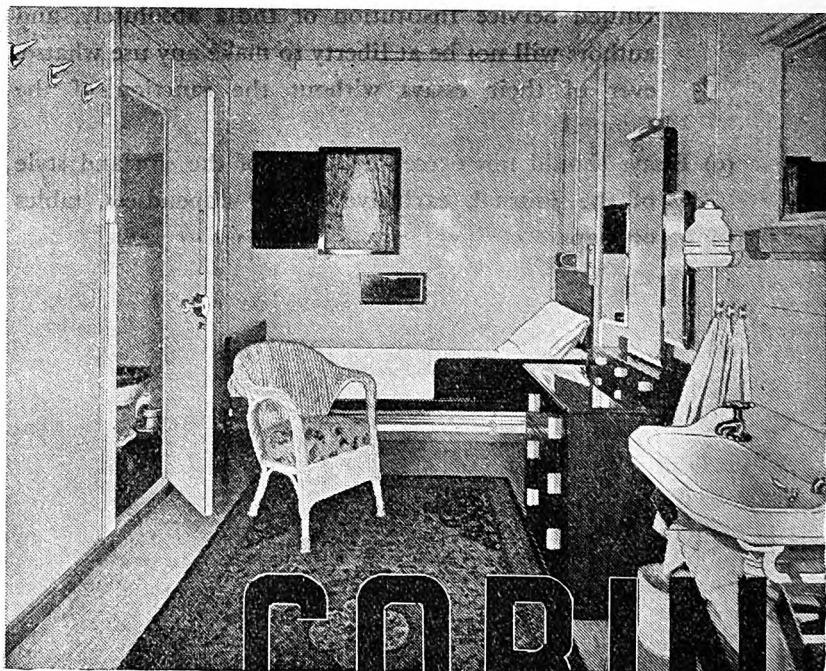
- (ii) "Mr. Baldwin has said that 'The Rhine is our Frontier.' Discuss this."

The following are the conditions of the competition:

- (1) The competition is open to all gazetted officers of the Civil Administration, the Royal Navy, Army, Royal Air Force, Auxiliary Forces and Indian States Forces.
- (2) Essays must be typewritten and submitted in triplicate.
- (3) When reference is made to any work, the title of such work is to be quoted.
- (4) Essays are to be strictly anonymous. Each must have a motto, and, enclosed with the essay, there should be sent a sealed envelope with the motto written on the outside and the name of the competitor inside.
- (5) Essays will not be accepted unless received by the Secretary on or before the 30th June 1937.
- (6) Essays will be submitted for adjudication to three judges chosen by the Council. The judges may recommend a money award, not exceeding Rs. 150, either in addition to, or in substitution for, the medal. The decision of the three judges will be submitted to the Council, who will decide whether the medal is to be awarded and whether the essay is to be published.
- (7) The name of the successful candidate will be announced at a Council Meeting to be held in September or October 1937.

- (8) All essays submitted are to become the property of the **United Service Institution of India** absolutely, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.
- (9) Essays should not exceed 15 pages of the size and style of the Journal, exclusive of any appendices, tables or maps.

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The Journal

OF THE

United Service Institution of India

Vol. LXVII APRIL, 1937 No. 287

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EDITORIAL

On 19th May 1911 a contingent of Indian troops left Bombay on the Royal Indian Marine steamer *Dufferin* to take part in the coronation ceremony of His late Majesty King George the Fifth. The contingent of over 800 men contained representatives of the Volunteer Force and of the Imperial Service Troops in addition to at least one Indian officer from every regiment and corps of the Indian Army.

The contingent which leaves India this month for the coronation of His Majesty King George the Sixth is slightly smaller, but the general lines of the 1911 arrangements are being followed. Again each regiment and corps of the Indian Army will send an Indian officer. Officers of the Auxiliary and Territorial Forces and of the Indian States Forces will also be present. There are however certain points of interest about the present contingent. In the first place it includes a representative body of police from every province in India. Then the Indian Air Force, non-existent in 1911, will be represented by two Indian officers; while a ship of the Royal Indian Navy will take part in the Naval Review at Spithead. Although Burma is now separated from India, Burman representatives are included in the contingent; and it is pleasing to note that the Nepalese Government have allowed Gurkha officers to take part.

Three hundred men of the contingent will march in the coronation procession while accommodation has been arranged from which the remainder will obtain an excellent view. The

whole will be under the command of Colonel C. O. Harvey, c.v.o., C.B.E., M.C.

* * * *

The detailed estimates for the Services at home have not reached India at the time of going to Press. That
Rearmament. Britain had allowed her defence forces to fall to a level quite inconsonant with the influence she desired to have in European affairs was well known. But the bill which tax-payers will have to face is unexpectedly large. Under these circumstances the tax-payer will be more than usually concerned to see that he gets value for money. Rapid rearmament is apt at the best of times to be uneconomical rearmament.

The Navy estimates total £105 million, an increase of £49 million over the estimates for 1934-35, the last year of normal post-war expenditure. One of the largest increases is for new construction which includes three battleships, two aircraft carriers and seven cruisers in addition to smaller craft. Battleships at eight million apiece are notoriously expensive. It was sound policy therefore for the Government to forestall criticism by issuing to the public the report of the sub-committee of the Committee of Imperial Defence on the vulnerability of capital ships to air attack.

The Navy may have to operate in narrow waters within easy range of hostile land-based aircraft and the danger from air attack under such conditions will be a real one. What is so often forgotten is that the Navy is also responsible for the protection of trade routes and for that purpose may have to operate in wider seas. In the absence of a powerful British fleet, an enemy might place himself without interference across those trade routes on which we depend for our national existence. At present our air forces cannot perform the role of capital ships by holding in check enemy capital ships. Admittedly the radius of action of aircraft will increase, but the provision all over the world of enough aircraft to deal with probable contingencies would entail something approaching a two-power standard in the air with immense provision of facilities of all sorts.

While the report has done much to clear the air as regards this vexed question, it is in no sense a conclusive one. The Committee definitely consider that further experiments are necessary. We may therefore hear more of the question as naval and air rearmament progresses.

Army estimates for the year amount to over £82 million, an increase over 1934-35 figures of £42 million. Immediate additions are two infantry battalions; but a large proportion of the increase is due to the provision of new barracks throughout England and the creation of an adequate reserve of ammunition and material. It is satisfactory to learn that recruitment for the Territorial Army is improving in spite of the fact that precedence has had to be given to Regular Army requirements to the almost total exclusion of the needs of the former. It is regrettable that there has as yet been little response to join the Regular Army.

Air rearmament is a subject in which the public are naturally becoming more and more interested. Estimates amount to £88 million which compares with the meagre figure of £17½ million spent on the Royal Air Force in 1934-35.

The gross total includes the grant for the Fleet Air Arm, which is to be increased from 217 to 278 first line aircraft. In a memorandum accompanying the estimates Lord Swinton pointed out that the present scheme provides for 124 squadrons. In addition ten special units of the Auxiliary Air Force are to be raised to operate the balloon barrage scheme for the defence of London. Acquisition of ground for aerodromes and construction of buildings, including "shadow factories," account for substantial sums.

In spite of the great cost, few objections have been raised to rearmament. The need for it is realised only too well. Criticism has been directed rather towards a supposed lack of co-ordination in the Government's plans. It was reassuring therefore to read Sir Thomas Inskip's speech in which he informed the House that many major questions had been reviewed not only by the three services but by all departments concerned. He quoted among others the questions of coast defence, anti-aircraft defence of Great Britain, accumulation of war reserves and development of industry. An essential feature of the Government's proposals is that the defence programme shall remain flexible in view of the rapidity of change due to the intensive application of scientific research. Two factors are perhaps primarily responsible for the fifteen hundred million which it is estimated may be required. The first is the need for creating what has become known as a "war potential." It is not enough to equip defence forces. Replacement in war must be ensured. The second is the extent of the many new air defence measures involved.

That the bill will mean fresh burdens is obvious. We have no doubt however that the taxpayer will willingly bear the burden provided he is convinced of the need and is kept fully informed as to the progress of rearmament. The one thing to which he will take exception is to be asked to find money, when he feels that he is not being taken fully into the confidence of those who spend it. The Services have little to fear so long as their demands are openly and reasonably expressed.

* * * *

The doctrine pronounced by President Monroe rather more than a hundred years ago was aimed at the time **Pan-Americanism.** against deliberate exploitation of the New World, particularly of the South American continent, by European powers. But South American states have travelled far since then. With increasing population and wealth they have developed a strong individuality of their own. It is still too early to view the work of the Pan-American Conference recently concluded at Buenos Aires in correct perspective. To appreciate it at all, it is necessary to see world affairs with Latin-American eyes. There is for instance the influence of Washington, traditional protector of the continent, predominant in Central America, with increasing financial interests in Argentina, Brazil and Chile. Then there is Geneva and behind it, to American eyes at least, lies London. Economic ties between South America and Europe are still close.

In one way however the attraction of Washington is increasing. In the last century it was fashionable to deride the Monroe Doctrine. Who indeed could attack South America, remote as she was? But ideas in this respect are changing. As a Buenos Aires paper points out: "Distance destroyed; America has only the Monroe Doctrine to fall back on. The attractiveness of a Western neutrality block and of an American peace system are evident."

The programme of the Conference was obviously overburdened.

Economic resolutions were proposed, the implications of which had not been fully considered, and a Pan-American economic union is still far from being an accomplished fact. Three important agreements were however signed. The first two establish a system of mutual security by consultation and co-operation. These regional pacts may be a natural and evolutionary step

towards world peace. As such they are to be welcomed. Against this it must be remembered that they are opposed to some extent to League ideas of universality.

The third agreement, which was universally accepted, rules out any form of intervention, direct or indirect, in the affairs of any other country on the ground that intervention is always a threat to peace. To what extent non-interference can be carried out in emergency remains to be seen. History certainly shows that it is extremely difficult for any nation to maintain an attitude of strict neutrality during a major conflict.

It is this agreement however which Central and Southern American opinion regards as peculiarly significant; since it is held to transform the Monroe Doctrine from a United States policy into a multilateral engagement for which all American states have made themselves equally responsible. If this agreement is ratified by the legislature, Washington will indeed have surrendered its position as sole protector of the American continent. But it is hard to see how the United States can abandon her position in regard to the Panama Canal. Panama is an area in which she is vitally interested and for this reason alone the agreement will probably meet with criticism from Congress and the Senate. It may well be that the Monroe Doctrine will be replaced by a more limited but none the less definite "Isthmian Doctrine". The position will no doubt be clear when the next Pan-American Conference meets at Lima in 1938.

* * * *

Based on Montesquieu's doctrine of a sharply drawn distinction between the powers of the executive, the legislature and the judiciary, the constitution of the United States of America has always been an extremely rigid one.

Laws passed by the legislature may conflict with the fundamental laws of the written constitution in which case it is the duty of the Supreme Court to pronounce them 'ultra vires.' To amend the constitution requires not only the approval of two-thirds of the Congress but subsequent ratification by three out of every four State legislatures. Amendment is at the best of times a lengthy and uncertain process.

To have his National Recovery measures pronounced illegal by the judiciary must have been peculiarly irritating to President

Roosevelt when he knew that the country was behind him in his demand for sweeping reforms. The steps which are now proposed however savour rather of packing the court to suit the will of the executive than of attempting to make the constitution itself more adaptable. If they are successful the President will be in a position to nominate sufficient judges to the Supreme Court to ensure the passage of any carefully drawn New Deal bills. If they fail, the struggle will merely be postponed. Considerable opposition is likely to be met with in the Senate and from Conservatives all over the country.

* * * *

In view of the Spanish situation, the most important feature of the Anglo-Italian pact signed at Rome on 2nd January was the agreement to observe the "status quo" as regards national sovereignty in the Mediterranean area. From this point of view alone it has already done much to create an atmosphere favourable to a policy of non-intervention in the civil war. On general grounds the agreement is to be welcomed since it relaxes the tension which has unfortunately existed between Great Britain and Italy during the last eighteen months. There can be no doubt that freedom of entry into, exit from, and transit through the Mediterranean are of vital interest to both countries, and there is no reason why these interests should conflict.

* * * *

Another Mediterranean problem has been settled at Geneva by the agreement between France and Turkey as to the future of the Sanjak of Alexandretta. Constitutionally the province will form a separate entity with full control of its internal affairs. Syria will however be responsible for its external relations and the consent of the League is to be obtained in advance before any international agreement affecting the Sanjak is concluded by Syria. The Sanjak is not to raise military forces or to construct military works, a local police force only being maintained.

Although small in area, the Sanjak is of great potential importance. Alexandretta is the natural outlet to the vast hinterland of Aleppo and the Upper Euphrates Valley. Port works have not yet been developed, but the harbour is one of the best in the Levant. With the opening up of mineral resources in Armenia, Kurdistan, Transcaucasia and Northern Iraq its commercial

importance would increase. Railway communications in this part of the world are already well advanced.

A substantial measure of success has at last attended the work of the Non-Intervention Committee and there is now less likelihood of the war in Spain leading to international complications. On the 20th February a decree, akin to our own Foreign Enlistment Act, was issued by Baron Von Neurath forbidding Germans to travel in Spain for the purpose of joining in the civil war. Twenty-seven nations have agreed to take similar action. Still more important is an embargo on the supply of munitions which came into force on the 6th March. For purposes of control the Non-Intervention Committee has divided the Spanish land frontiers and coast line into zones and apportioned them to various European nations. Provided this control is carried out whole-heartedly, the war may be appreciably shortened. There remains only the thorny question of foreign volunteers now serving in Spain. On this no decision has yet been reached.

Meanwhile the struggle goes on. The insurgents gained their first important success for some months when they took Malaga. At Oviedo and Toledo Government forces have assumed the offensive. But the centre of interest is still Madrid, where General Franco's advance came to a halt in November. Even if he takes the capital, General Franco will still have half the country to conquer. Having conquered it, he would be faced with Galician, Basque and Catalan demands for autonomy. On the other hand the Government party has yet to show itself capable of keeping order in those parts of Spain which it occupies. The fact is that the opposing forces are in no sense homogeneous. Insurgent troops include Carlists and Monarchists, who support Franco from a common dislike of anarchy and not from a love of fascism. Government forces contain moderate socialists and liberals, who are united with communists through a mutual dislike for fascism. Spain itself is hopelessly divided into a variety of factions.

In the field the morale of Government troops has been improved by the successful defence of Madrid and the opposing armies now appear fairly well matched. The war is already one of attrition and it can only be hoped that the embargo on the supply of war material will help to shorten it.

Under the circumstances it would be idle to prophesy what

the future holds for Spain. Two things seem fairly certain however. Democracy, as we understand it, cannot result. A dictatorship of some sort, fascist, communist or otherwise, is inevitable if the numerous factions are to be coerced as they must be. And Spain itself will be bitterly impoverished for many years to come.

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Events in China are difficult enough to follow at any time.

China.

But the news that Marshal Chiang Kai Shek had emerged from captivity and was bringing with him his former jailer was simply astounding. General Chang Hsueh Liang may have hoped himself to step into the President's position; he may have come to some agreement with the communists in Shensi. It is more likely that he was a mere figure-head urged to take the step he did by Chinese soldiery, who felt that the President should be forced to adopt a firmer policy against Japanese aggression. Certainly the episode has done nothing to lessen Marshal Chiang Kai Shek's popularity. Indeed it has stressed his importance to China.

It is interesting then to review the position which now faces the Marshal. It is less than a year since he moved south to quell a revolt in Kwangsi and Kwantung. Although the rebellious tendencies of the South may not be dead, yet it may be said that the rule of the Nanking Government is now fairly established in the Yangtse and Southern Provinces. Nor is it likely that Japan wishes to embarrass Nanking in central China, for to do so could only result in throwing the country once more into turmoil with a correspondingly adverse effect on Japanese trade.

The position in the north is, however, much more difficult. Here the Nanking Government has to face Japanese militarism, the communism of the Soviet and the unruliness of Mongolia. The last few years have seen a steady progress of Japanese influence in the five northern provinces. Chahar and Hopei are already governed by an autonomous council aided by Japanese advisers. Shantung, Shansi and Suiyuan are only nominally under the control of Nanking. Certainly the full revenues of these provinces no longer reach Nanking and revenue is essential if the authority of government is to be upheld.

Added to this is the fact that communist influence in Shensi is certainly strong and the question is complicated by nationalist aspirations of the Mongols.

It will be remembered that Marshal Chiang Kai Shek has declared that he will fight no more civil wars except against communists. If provinces wish to follow separatist tendencies, he will try persuasion but not force.

The extent to which he will be able to continue his policy is questionable. That the centre of interest in China has shifted to the North seems evident.

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A year ago the news of a military revolt in Tokyo surprised and alarmed the world. Although the leaders of **Japan.** that revolt have been punished, the struggle between the army and parliament still goes on. The budget for the year is considerably larger than for last year and nearly half the expenditure is for defence. Money will have to be raised both by increased taxation and by borrowing. There are army schemes for reforming the administration and for reducing the legislature to a mouthpiece by which the army's demands are made known. It is a feature of the Japanese Constitution that Ministers for Naval and Military affairs must be officers on the active list. By refusing to allow an officer to assume the portfolio, until they have approved the composition of the cabinet, army leaders can bring a refractory prime minister to heel.

It is evident that Japanese public opinion is growing uneasy at this military control and particularly at the policy of continental expansion persistently urged by the army. It is possible that the Navy, which has never been too enthusiastic about Japanese penetration of Manchuria, may be a strong factor of compromise. Meanwhile it is likely that Japanese foreign policy will be much influenced by internal conditions.

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In our last issue we inadvertently remarked that the Afridis had agreed to withdraw their piquets near Shagai. **North-West Frontier.** A correspondent has drawn our attention to the inaccuracy of this statement. The settlement with the Afridis, although at the time it appeared likely, had not actually taken place. They continued to be excluded from administered territory throughout December and January and their allowances remained in suspension. It is true that the piquets were never held very strongly and did not constitute a direct threat to British defences in the Khyber. At the

same time the building of them was a breach of the 1898 agreement and had its psychological effect in Tirah. The blockade and suspension of allowances were intended to induce the evacuation of the piquets and not in any sense to force the Afridis to agree to the construction of a road through Tirah. In February the Afridis reduced the piquet garrisons to a handful of unarmed men. The blockade was thereupon lifted and tribal allowances partially restored. It is to be hoped therefore that our relations with the Afridis have entered on a better phase.

Meanwhile a wave of unrest has been evident in Waziristan. The Khaisora operations reported in our last number had barely ended when two young officers were murdered. As yet their murderers have not been surrendered. Several other outrages have occurred. Two Hindus were kidnapped from a village near Bannu. A raid was made on a *serai* near Datta Khel. Telephone lines have been cut more than once.

During the course of normal training in February the Wana column was attacked both in camp and on the march by Sulaiman Khel Ghilzais and sustained a few casualties. In view of the unsettled conditions the movement of officers in Waziristan and the Zhob has been restricted; and a portion of the 1st Division has been moved to the Bannu area as a precautionary measure.

If any lesson can be drawn from recent events it is that we can never afford to relax vigilance on the frontier.

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The first elections under the new constitution have been held. In Bombay, Madras, the United Provinces, the Central Provinces, Bihar and Orissa the Congress party secured an absolute majority. In Madras their victory was quite remarkable. While Congress is actually the strongest individual party in Bengal, Assam and the North-West Frontier Province, it is more than likely that a coalition government of one sort or another will result in these provinces.

In the Punjab the Unionists, a party representing a variety of communities, obtained an absolute majority; and in Sind a similar party, the Sind United, obtained more seats than any other single party although the victory in this case was by no means substantial. The first notable feature of the elections was the success achieved by Congress. The second was the absence of any

serious disturbances. For this no small measure of credit is due to both the electorate and to the police.

* * * *

General Von Seeckt was seventy years of age and on the retired list when he died. The son of a soldier, he proved **Von Seeckt.** himself an able staff officer during the war. But his real reputation was built in post-war years. In 1920 he was appointed to command the Reichswehr. His hand created an army of 100,000 potential officers under the eyes of the Allied Control Commission. When he resigned in 1926 as the result of a political quarrel, his most effective service for Germany was complete. From that date German military expansion was a relatively simple matter. Whether Von Seeckt's work was of service to the world is a more debatable matter. A monarchist by upbringing, he was faithful to the Republic in its time of need and Germany was always foremost in his mind.

THE 1ST OF APRIL, 1937: AN EPOCH IN INDIAN CONSTITUTIONAL HISTORY

Introduction

The 1st of April, 1937, marks a further stage in India's political history—a stage which introduces what are probably the most spectacular changes in India's constitution since the day when she was unified under British rule and became an Empire.

It is proposed in this article to give a very brief survey of the history of the reforms and to describe in outline the changes that will be effected by the Government of India Act of 1935.

Politically India has travelled far since the days of the East India Company, and a brief retrospect of the road she has travelled may make it easier to appreciate the position she has now reached.

The idea of associating Indians in the higher administration of the country occurred to India's British rulers as long ago as 1833, when a Government of India Act, forerunner of many more of the same name, laid it down that no native of the country should, by reason of his religion, place of birth, descent, or colour, be disabled from holding any place, office or employment under the East India Company.

When control was transferred from the Company to the Crown, this pledge was included in Queen Victoria's proclamation.

Under the terms of the pledge a number of individual Indians have risen to high offices in the service of the Crown, but except as individual servants of the Government they were not, until a much later period, given any hand in framing the laws under which they lived, and until comparatively recent times the idea of an Indian Government, responsible to the people of India, had occurred to few except the most extreme nationalists. Even the right of collective criticism of the Government was not officially admitted until in 1892, under the Indian Councils Act, Indian Councils were given the right to discuss the financial proposals of Government and to ask questions on the subject of Government's policy and its administration of the country.

The Morley-Minto Reforms

The Indian Councils Act of 1909 introduced a non-official majority in the Provincial Councils, but not in the Imperial

Legislative Council at the centre, and gave members of the Councils the right to move resolutions and to demand a division. In these Councils, government officials could now be out-voted by a combination of elected members and nominated non-official members. The Councils, central and provincial, were still however merely advisory and their function was not to control the policy of the Governments, but merely to keep them abreast of popular opinion in India.

Lord Minto and Lord Morley, the joint authors of the Act of 1909, were no believers in democratic government for India. Lord Morley declared that if he had believed that the Morley-Minto reforms would lead to the establishment of a parliamentary system in India, he would have had nothing to do with them. Lord Minto was even more outspoken. When opening the new Imperial Legislative Council in 1910, he said:

"We have distinctly maintained that representative government in its western sense is totally inapplicable to the Indian Empire and would be uncongenial to the traditions of eastern peoples. . . . We have aimed at the enlargement of our Councils and not at the creation of Parliaments."

What had been achieved by 1909, then, was not any measure of democratic government in India but merely the association of Indians in the administration of India and the creation of central and provincial bodies of elected critics representing the small proportion of Indians then entitled to vote. The form and much of the procedure of these bodies were modelled on those of the British Parliament, but they were in truth little more than debating societies and in practice they spent a large proportion of their time in purely destructive criticism.

The Vision of Home Rule: The Declaration of August, 1917

India's first real prospect of responsible government appeared in August 1917. The Great War was responsible for this remarkable phenomenon—remarkable, because it followed so soon on Lord Minto's declaration of 1910.

The magnitude of India's war effort evoked a generous response from Britain and the Dominions and, with the acknowledgment by the Allies of the principles of national liberty and self-determination, people both in Britain and India began to ask what was to be the final goal of British rule in India. The answer was the declaration of August, 1917, in which the Secretary of State

for India declared that "the policy of His Majesty's Government, with which the Government of India are in complete accord, is that of the increasing association of Indians in every branch of the administration and the gradual development of self-governing institutions with a view to the progressive realisation of responsible government in India as an integral part of the British Empire."

This declaration was followed by the appointment of Indian representatives, on an equality with those of the self-governing Dominions, to the Imperial War Conference and to the Peace Conference. India, not unnaturally, now believed that she was well on the way to Dominion Status.

The Montagu-Chelmsford Report

In 1918 came the Montagu-Chelmsford Report, which proposed that responsible self-government within the Empire should be conferred on India by progressive stages. The report saw India as "a sisterhood of States, self-governing in all matters of purely local or provincial interest. . . . Over this congeries of States would preside a Central Government, increasingly representative of and responsible to the people of all of them; dealing with matters, both internal and external, of common interest to the whole of India; acting as arbiter in inter-state relations, and representing the interests of all India on equal terms with the self-governing units of the British Empire. In this picture there is a place also for the Native States."

All subsequent reforms have been based on this report, and the New Constitution is merely another step towards the fulfilment of the Montagu-Chelmsford vision.

The Government of India Act of 1919: Dyarchy

The Government of India Act of 1919 gave India her first instalment of responsible government—an instalment which in the opinion of most Indian politicians was far too small. Indian ministers chosen from the Provincial Legislatures were made responsible to them for certain "transferred subjects," while the more vital "reserved subjects" were kept in the hands of the Governors and their Executive Councils. These provisions were not made applicable to the centre, where all subjects remained in official hands.

But though the instalment was a small one, the change of principle was fundamental. As a part of a scheme of gradual advance, Provincial Governments in India became partially responsible to elected representative bodies in India, instead of

being as before responsible only to the British Parliament. It is true that these Governments were only responsible to the Legislatures for certain named subjects, but the principle had been admitted, the first step had been taken, and there could be no turning back.

The magnitude of the change in principle was not realised at the time by Indians owing to the fact that Dyarchy, for so the system of dual control introduced by the 1919 Act was called, failed to work as it was intended to work. The reason for this failure was threefold. In the first place, it was found impossible to run the administration of a Province in water-tight compartments, some of them controlled by elected ministers and some by civil servants nominated by the Governor. Secondly, some of the Provincial Legislatures have found it difficult to rid themselves of the idea that their chief function is criticism; though others have moved with the times and produced excellent results. And finally, the Provincial Legislatures have always had the Governor in the background, with his powers of veto and certification, ready to appear like a *deus ex machina* and put things right whenever a piece of wild legislation or senseless obstruction has threatened to interfere with the proper administration of the Province. Senseless obstruction has, therefore, been more in evidence than it might otherwise have been.

This situation was a natural result of the fact that the Indian Councils, in their debating society stage, were given little encouragement to be constructive and had, therefore, confined their activities largely to destructive criticism.

The Simon Commission

But it was never the intention that responsible government in India should stop short at Dyarchy, as introduced by the 1919 Act. In addition to introducing the first instalment of responsible government, this Act made provision for the appointment of a Statutory Commission in ten years' time to examine the working of the Act and the possibilities of a further advance. The Statutory Commission was actually appointed two years before its time.

The Simon Commission paid two visits to India, collected and examined a mass of evidence, and produced a report recommending a form of constitution similar in many respects to the New Constitution which comes into force under the Government of India Act of 1935.

There was however one important difference. While the Simon Commission recommended Provincial Autonomy, it did not contemplate responsibility at the centre for many years to come.

The recommendations of the Commission were considered by three successive Round Table Conferences and a Select Committee of both Houses of the Imperial Parliament and were finally laid before Parliament in the form of the bill which has since become the Government of India Act of 1935. It is the provisions of this Act, or rather the bulk of these provisions, which come into force on the 1st of April, 1937.

The Government of India Act of 1935

In an article of this nature it is not possible to examine fully the reasons which led up to the various provisions of the Act, nor is it even possible to describe those provisions themselves in more than the barest outline. The Act with its various schedules consists of some four hundred and fifty pages. What follows does not claim to be more than a brief outline of the main features of the Act.

The object of the Act is to put India a stage further on the road to responsible government within the British Empire.

The factors affecting the attainment of this object are numerous and complicated. The defence of India is vital to the Empire, and we can afford to take no unnecessary risks; India is a country nearly as large as Europe, and contains more races, languages and religions than does Europe itself; she consists of three distinct types of territories, the Governors' Provinces of British India, which already enjoy a large measure of independence in internal affairs, the Chief Commissioners' Provinces, which are administered under the Government of India direct, and the Indian States, each of which is ruled by an Indian Prince who is in direct treaty relations with the Crown; one of the Governors' Provinces (Burma) is not Indian at all, the Chief Commissioners' Provinces are all in different stages of development and each has its own individual reason for being under central control, while the Indian States vary from units the size of a European country to feudal estates consisting of one or two villages. These are only a few of the main factors.

The underlying idea of the plan is that India shall become a Federation of States within the British Empire, rather on the

lines of the Commonwealth of Australia. Unlike Australia, however, the Indian Federation will contain two different types of member states—the Governors' Provinces of British India and the Indian States. It will also contain certain territories (the Chief Commissioners' Provinces) which will be administered under the Federal Government direct.

Subject to certain limitations, each Governor's Province will be practically autonomous as far as its own internal affairs are concerned. Federated Indian States will retain, outside the field accepted as federal, the measure of sovereignty which they now possess. The Governors' Provinces will have Provincial Legislatures elected by the people of the Provinces, while the Indian States will remain, as now, under the rule of their own Princes. Provinces and States will both be represented in the Central Legislature, and Central and Provincial Legislatures in India will, like all legislatures in the British Empire, be to a great extent modelled on the British Parliament.

To guard against a breakdown of the constitution certain safeguards are included in the Act. In the Federal Government, the control of defence and of foreign and ecclesiastical affairs will not be handed over to elected ministers, but will be retained in the hands of the Governor-General, while he and the Governors of Provinces have been given discretionary powers of intervention. should they consider such intervention necessary in the public interest. In both the federal and provincial spheres provision is made against the possibility of an irresponsible majority in the legislatures attempting to damage the credit of the country or to prevent the working of the constitution by cutting off supplies, and to this end certain heads of the estimates, federal and provincial, are made not subject to the vote of the legislatures.

The three main principles of the Act, then, are All-India Federation, Provincial Autonomy and Responsibility with Safeguards.

The Act is to be put into effect in two stages, and it is the first of these stages, Provincial Autonomy, which will be reached on the 1st of April this year. On the introduction of this stage, Burma, the non-Indian Governor's Province, will be separated from India; there will be a transfer of real power to the elected representatives of the people of the remaining Governors' Provinces; and negotiations with the Indian States will proceed.

The Central Government will remain in the transitional stage, as it is now, responsible to and deriving its power from the British Parliament.

The second stage, Federation, will follow when the Rulers of States representing not less than half the aggregate population of Indian States and entitled to not less than half the seats allotted to the States in the Federal Upper Chamber have executed instruments of accession signifying their willingness to join the Federation.

THE FIRST STAGE: PROVINCIAL AUTONOMY

Provincial Executives

The executive authority of a Province is to be exercised by the Governor, who is appointed by His Majesty and will exercise his powers either directly or through officers subordinate to him. The Governor will be aided and advised by a Council of Ministers who will be entitled to tender advice on all matters within the provincial sphere, other than on the use of powers described by the Constitution Act as exercisable by the Governor in his discretion, e.g., the use of his power of veto over legislation and administration of excluded areas. He is also entitled to differ from the advice tendered to him by his ministers in respect of certain purposes, such as the prevention of a grave menace to the peace and tranquillity of the Province and the protection of the interests of minorities, in which he is declared to have a "special responsibility."

Provincial Legislatures

The Legislature in each Province consists of His Majesty, represented by the Governor, and either one or two Chambers. In Madras, Bombay, Bengal, the United Provinces, Bihar and Assam, there are two chambers and in the remaining Provinces one chamber. Where there are two chambers, the Upper Chamber is known as the Legislative Council and the Lower Chamber is known as the Legislative Assembly. Where there is only one chamber, it is known as the Legislative Assembly.

Representation in the Legislative Assemblies is based on a system of election through communal electorates. Special provision is made for the representation of women and of certain interests such as commerce, labour, landholders and universities. Generally speaking, representation in the Legislative Councils is on the same lines, though in Bengal and Bihar nearly half the

seats are filled by a system of indirect election by the Legislative Assemblies, and in all Provinces a number of seats are reserved to be filled by nominees of the Governor.

The life of the Legislative Assemblies, unless sooner dissolved, is five years and no longer, while the Legislative Councils are permanent bodies not subject to dissolution, of which approximately one-third of the members will retire every three years.

Where there are two chambers, bills other than financial bills may be introduced in either, but require to be passed by both before being presented to the Governor for his assent. If a bill has passed one chamber and fails to pass the other, the Governor can summon a joint session of both chambers to consider the bill. If the bill passes at this session it is considered to have passed both chambers.

When bills have passed both chambers (or, in Provinces where there is only one chamber, the Legislative Assembly) they are presented to the Governor for his assent. The Governor can either assent or withhold assent to the bill, or reserve it for the consideration of the Governor-General, or return the bill to the legislature, with his recommendations, for further consideration. When a bill is reserved for the Governor-General, the latter may either assent in the name of His Majesty, or withhold assent, or reserve the bill for the signification of His Majesty's pleasure. Bills which have received the assent of the Governor or the Governor-General may be disallowed by His Majesty within twelve months of the date of such assent.

Though the Governor will cause a statement of the estimated revenues and expenditure of the Province, together with the statement of proposals for the appropriation of revenues, to be laid in respect of every financial year before the Provincial Legislature, a portion of the annual proposals for appropriation will not be submitted to the vote of the Legislature. This portion, generally speaking, includes all sums required to meet the Province's external obligations and the salaries and allowances of the Governor, the Ministers, the Advocate-General and the High Court Judges. All other heads of the provincial estimates are subjected to the vote of the Provincial Legislature, though the Governor can authorise the expenditure of money required for the discharge of his special responsibilities, even though this has been refused by the Legislature.

The Provincial Franchise

Under the Act of 1919, about 7,500,000 persons, or roughly 3 per cent of the population, were entitled to vote in elections to the Provincial Legislatures. Under the new Act, about 34,500,000 persons, or 14 per cent of the population, have votes. The qualifications vary in the different Provinces, but in all the voter is required to have either a stake in the country in the form of property or income on which he pays revenue, or a minimum educational qualification (varying from a literacy test in Madras to matriculation standard in Bengal and Bombay) or a satisfactory record of service in the police forces or in the armed forces of the Crown.

The Working of Provincial Autonomy

That is the skeleton of the portion of the Act which will come into force on the 1st of April. It remains for the Provinces themselves to put the flesh on the bones and bring the Act to life.

The general elections which have just taken place all over India provide us with at least three distinct provincial situations, namely, Provinces whose legislatures apparently contain either (i) a majority willing to work the new constitution, or (ii) a majority pledged to wreck the constitution, or (iii) approximately equal numbers of co-operators and non-co-operators.

Case (i) requires no remark, for a majority willing to work the constitution will almost certainly carry out its duties in much the same way as a reasonable constitutional government in any other country.

In Case (ii), where the majority in the legislature sticks to its intention of attempting to wreck the constitution by non-co-operation, a time may come when the Governor will be compelled to exercise his special powers, in the interests of peace and tranquillity.

In either of these cases, a Province is assured of reasonably good government. Even in Case (iii), where there can be no stable majority in the legislature, there will still, owing to the reserve powers of the Governor, be no great danger to good administration or public security. It is probable, however, that instability in the legislature will be reflected in the administration of the Province and that the settling down process will be protracted. There may consequently be a considerable period of confusion and political tension.

The Second Stage: Federation

After the inauguration of Provincial Autonomy, the Act provides for the establishment of a Federation under the Crown, to be brought into being by Royal Proclamation after an address has been presented to His Majesty by each of the Houses of Parliament praying him to take this step. The Federation will consist of the autonomous Provinces ("Governors' Provinces") of British India, the Chief Commissioners' Provinces, and those Indian States which agree to join the Federation. The Governors' Provinces and the Indian States will be members of the Federation, while the Chief Commissioners' Provinces will be "federal territories" under the direct control of the Federal Government.

The Federal Executive

The Federal Executive will consist of the Governor-General, representing His Majesty, advised by a cabinet called the Council of Ministers. As in the case of the Governors of Provinces, the Governor-General will have certain special responsibilities and powers, and will be directly responsible for the control of defence, foreign relations and ecclesiastical affairs.

The Federal Legislature

The Federal Legislature will be composed of His Majesty, represented by the Governor-General, and two chambers, to be known as the Council of State and the House of Assembly. The Council of State will be a permanent body, one-third of whose members will retire in every third year, while the House of Assembly will have a life of five years from its first meeting, unless dissolved before that time.

British Indian members of the Council of State will in the main be chosen by direct election from communal electorates. Members from Indian States will be nominated by the Rulers of the States concerned.

British Indian members of the House of Assembly will for the most part be elected by the Provincial Assemblies, while seats allocated to Indian States or groups of States will be filled by nomination by the Ruler or Rulers concerned.

As in the case of the two-chamber Provincial Legislatures, bills other than financial bills may be introduced in either chamber, and to become law require to pass both chambers and receive the assent of the Governor-General. The provisions for joint sessions of the two chambers are identical with those for the two-chamber Provinces.

After being passed by both chambers, bills will be presented to the Governor-General for his assent. The courses open to him are similar to those open to a Provincial Governor under Provincial Autonomy. He can assent, withhold assent, reserve the bill for the signification of His Majesty's pleasure, or send the bill back to the Legislature for reconsideration. Even if the Governor-General assents, His Majesty can still disallow the bill provided this is done within twelve months.

The Federal Estimates

The provisions relating to the Federal Estimates are similar to those described above for the Provincial Estimates, with this difference that demands for grants will be submitted to both Houses of the Federal Legislature, whereas in the case of Provinces with two chambers such demands will be submitted only to the Lower House.

Conclusion

It will be seen that the Act introduces into India that type of Western democratic government which has now fallen into such disfavour in a number of western countries. It also makes provision for the possible failure of this form of government by arranging for individual Provinces or the Federation as a whole to become "constitutional dictatorships" at the discretion of the Governors or the Governor-General, who will possess powers vested in them by the Act for use in case of a failure of the constitutional machinery.

I should like to conclude with what Mr. A. P. Herbert might describe as a piece of Ship of State Work. In the first stage of the new constitution, the Provincial Ships of State, each fitted with the dual control mechanism more usually associated with aircraft, will be directed in accordance with the Act towards a "Federal Fleet Rendezvous." As long as the ships continue to move in the right direction, each vessel will be managed by a committee chosen by the crew. Should this committee attempt to navigate the ship elsewhere than to the rendezvous ordered, the Governor can keep her on the right course by means of the dual control mechanism.

In the meanwhile the Ships of State of the Indian States will be invited to present themselves at the rendezvous and join the Federal Fleet. They are at perfect liberty to refuse the invitation, and should at least half of them not accept, there will be no Federal Fleet.

On the arrival of the Provincial and State Vessels at the federal rendezvous, modified command of the whole fleet will be assumed by a committee of representatives from the individual ships. The Federal Fleet, however, like the individual Provincial Ships, will be kept on the right course by a judicious use of the dual control machinery with which the Governor-General is also supplied, and the Governor-General alone will be responsible for the armament carried, the use made of that armament, and the way in which the fleet behaves towards foreign shipping.

"THE ARMY UNDER CHANGE"—A CRITICISM

BY MAJOR D. A. L. WADE, M.C., ROYAL SIGNALS.

"When all the conditions are carefully weighed, the balance seems to swing heavily against the hope that a British field force on the Continent might have a military effect commensurate with the expense and risk. I cannot see an adequate prospect, even when the present programme (of re-equipment) is complete, of its possessing the power of attack necessary to wrest from an invader any ground he may have gained before it could arrive. . . . I do not see that a larger force would have a better effect, nor that subsequent reinforcement might make a great difference, for the limiting conditions have little to do with numbers of men. They are essentially qualitative and technical. Moreover, beyond all the difficulties which face the attacker on land lies the danger of his approach being dislocated by hostile attack from the air. And the larger the force the greater the danger."—The Military Correspondent of "The Times."*

This statement coming from so well-informed a source cannot lightly be disregarded. The author doubts the wisdom of Great Britain attempting to maintain a field force for intervention on the Continent. He bases his arguments on our failure to provide the means—technical and tactical—to overcome the power of modern defence, our policy of sacrificing quality for quantity during the years of financial restrictions, and the conservative outlook of our tactical doctrine which has resulted in a theory of "safety first"—an attitude which "can only be described as 'reckless caution.'" It is not for us to question the policy of the Government in maintaining a field force; but we may with profit examine the "qualitative and technical" limitations of that force in the light of the following statement:

"Because of their small size, our forces need to excel in technical and tactical skill. At present they do not. Hampered by the poor type of recruits, by depressingly slow promotion among the officers, by the peace-time tendency to give staff work preference over leadership, by lack of men and new means with which to develop the art of command, and by years of an atmosphere in

* *The Times*, 30th October and 2nd November 1936. Leading article entitled "The Army under Change."

*which boldness of thought and freedom of expression were discouraged, the Army as a whole is not up to the standard of skill demanded by the more exacting conditions of modern warfare. It may be no worse than other armies, but it does not stand out like the Army of 1914."**

In 1914 the standard of the Army was physically and morally high. Intellectually it was low compared with the standard of to-day. It excelled in musketry, and leadership—based on the camaraderie existing between leaders and led—was good. In short, its salient features were beef, brawn, musketry and *esprit de corps*. It is probably fair to state that tactically and technically (musketry apart) it was no better and no worse than other armies. To-day the Army attracts a different type. It demands a high physical and educational standard. The former may be lower than in 1914, but it is nevertheless high compared with the physical standard of the nation.† Whatever it may lack in the physical is compensated for in the intellectual; and under modern conditions the latter is of no less importance than the former. Technically it is hampered by lack of modern equipment; but the skill is there, and given the right weapons it will certainly handle them with ability. Anyone who has seen the personnel of the Royal Tank Corps handle their 14-year-old tanks on manœuvres need hold no doubts as to the technical skill of the British Army. More serious is the shortage of recruits. For this there are many reasons. The least of them is the pay of the rank and file. The greatest, probably, that of the prospects—or lack of prospects—of employment on return to civil life. Beyond these are the uncomfortable conditions of living in ancient and dilapidated barracks still prevailing in the majority of stations, the petty restrictions and annoyances of fatigues and other regimental duties, the long periods of service overseas without home leave, and a national tendency to decry the Army and extol pacifism. So long as soldiers are expected to inhabit quarters in which the degree of comfort is quite out of keeping with modern standards of living; so long as the Government and the Trades Unions are unable to guarantee employment to ex-soldiers; so long as men are forced to spend their time peeling potatoes, washing dishes and pacing a restricted beat in "a smart

* *Ibid.*

† "In general terms the situation is that if three men come forward to enlist one is rejected at sight, the second is rejected for physical, medical or educational reasons, and the third is finally approved."—General Annual Report on the British Army for the year ending 30th September 1935, p. 7.

and soldierly-like manner" guarding Government property (which could much more effectively and more cheaply be guarded by a civilian watchman), instead of learning their trades; so long as soldiers have to travel overseas in obsolete troop-ships, and on arrival remain five and six years in a bad climate without home leave; so long as these conditions prevail the shortage of recruits will remain. At the root of most of these evils lies money. Modern armies are expensive, and unless the nation is prepared to foot the bill it cannot expect the best. It is no good blaming the military authorities. Fortunately signs of improvement are already manifest, and it is to be hoped that out of the vast sums now being allotted to armaments a substantial sum will be set aside to continue the building of new barracks and troop-ships, and to provide labour-saving devices.*

In citing "the depressingly slow promotion among the officers" *The Times'* Military Correspondent is on surer ground, but here again the trouble lies largely with finance. Recently steps have been taken to remedy the manifestly unfair inequalities in the promotion of infantry subalterns. Certainly this is merely nibbling at the problem, and the only satisfactory solution is a time-scale of promotion, as already exists in certain corps, or a general list for promotion on the lines of the Royal Navy. Either of these steps would, however, entail additional cost, at any rate initially. With regard to "the peace-time tendency to give staff work preference over leadership" we agree, if the writer is referring to the small proportion of non-P.S.C. officers who attain general's rank. A good staff officer does not necessarily make a good commander, and conversely a good commander is not necessarily a good staff officer. The psychological factors which go to make either are fundamentally different, and all too rarely combined in one personality. This fact needs greater recognition, and the average P.S.C. officer is probably the first to admit it.

"The lack of men and new means with which to develop the art of command" is a melancholy fact, but without money one can have neither the men nor the means. With the increase of mobility the demand for larger and less restricted training grounds has become a matter of urgency. The notices marked "out of bounds for troops," so common a feature of our manœuvre areas,

* Anent labour-saving devices see article entitled "Base Installations and Labour-saving," by Major Shaw, R.A.O.C., R.U.S.I. Journal, November 1936.

are no less responsible for the artificial nature of our exercises than the waving of green flags and the whirling of rattles. The art of command can only be acquired by practice. During the last eighteen years the opportunities provided for divisional commanders to exercise their commands have been all too rare; and in the case of potential corps commanders rarer still. The latter can be counted on the fingers of one hand. The writer well remembers one of these occasions. The fortunate corps commander was a distinguished General who, during the Great War, had daily handled divisions as does a divisional commander his battalions. He was now entrusted, for a few brief hours, with one division at peace strength and the dry skeleton of a second, barely draped with commanders, staff and signals. Army councillors, generals by the dozen and staff officers by the score flocked from afar to witness this rare and refreshing spectacle. It would have been inspiring, had it not been pathetic.

As regards the "years of an atmosphere in which boldness of thought and freedom of expression were discouraged," we will tread delicately and offer up a brief prayer—Heaven help us from a relaxation of that paragraph in King's Regulations which would lead to complete freedom of the military pen. It might result in open criticism of our superiors, or even in politics! Heaven help us equally from a complete muzzling of constructive criticism and progressive thought! Under such circumstances our military journals and discussions would become as dry as dust, the vehicles of potted history and mutual admiration societies. Between these extremes lies a happy medium. Are we so far from it? The majority will probably answer "No."

At the root, therefore, of most of our delinquencies lies money. *The Times'* Military Correspondent appears to agree, but lays the blame at the feet of the military authorities for sacrificing quality to quantity during the years of financial stringency. He states that "if money for modern equipment could be obtained only by cutting down the numbers of men, this was sounder economy, and a lesser risk than allowing the Army to become technically unfit to cope with modern conditions." Assuming we had pursued such a policy after the last war, and reduced the strength of our field force and the Territorial Army by, say, 40 per cent, we should now have an army equipped on modern lines. Whether the equipment would be any better than that which we are in the process of

providing is open to question. We might have gained more experience tactically and technically. On the other hand we should now be faced with the problem of re-expansion. The problem of finding the larger numbers of recruits required to complete new or resuscitated units would be very considerable, and there would be a heavy deficiency of reservists, which time alone could remedy. During the period of contraction we should have been hard-pressed to find sufficient reinforcements in the event of a colonial war or serious disturbance within the Empire. We should certainly have had to abandon the Cardwell system; not that the Cardwell system is in itself "sacrosanct," but any substitute for it ever propounded—and there have been many—would inevitably have entailed a large capital outlay. It is, therefore, doubtful whether by, in the past, adopting a policy of sacrificing quantity to quality we should to-day find ourselves in any better position. We should certainly still be confronted with the problem of reconciling "the wide and increasing divergence between what is required for Continental warfare and what is best suited to colonial warfare and Imperial policing." This is surely the basis of all our other problems.

Should another Continental war arise, no one can foretell its nature or the course it will take. It is certain that it will differ from the Great War and all previous wars. It is, however, fairly safe to predict certain features of it. At the outset aircraft and mobile forces will play the predominant roles, the former striving to delay the deployment of the enemy's main army, the latter striving to gain ground to cover the deployment of its own main army. It will only be possible to employ the vast masses of conscript armies in proportion to the security attained for their communications against hostile air action. To overcome the power of the defence infantry will require the assistance of tanks and artillery in large numbers. Alternatively, as stated by *The Times'* Correspondent, they may call to their aid darkness, smoke and fog, but these are likely to be as much a hindrance as an aid to the attacker once he has penetrated the enemy's forward positions. They are not, therefore, likely to lead to decisive results. The army which possesses large numbers and reserves of tanks will stand at a great advantage, but the anti-tank gun already threatens the power of the tank. Unless, therefore, one side or the other can gain an early and decisive victory, a period of stalemate will

ensue until attrition or some new weapon or method brings victory. The army which has thought out and prepared new weapons and new methods in advance will be thrice-armed.

The essential problem of land warfare may be stated in a few words. It is to overcome the manpower of the defence, either by destroying it, or by so undermining its morale that it is forced to surrender. It is a problem as old as warfare itself, and capable of no lasting solution, because sooner or later the defence finds the means of countering whatever new weapons or methods the attack may produce. The simplest method of undermining the morale of an army is to strike at its rear. If at the same time one strikes at its front the results are doubly effective. Two men are fighting, a third comes to the aid of one of them. He attacks the assailant in the rear whilst his companion continues to engage him in front. The result is decisive. It may not be sporting; but war is not fought under Queensberry rules.

The air has already given us a means of attacking the enemy's lines of communication; but it has yet to be proved that it is capable thereby of producing decisive results. The aeroplane is essentially a means of transporting weapons swiftly and enabling them to be used at long ranges. The attack is rapidly delivered, after which the aeroplane is ineffective until it has returned to its base and reloaded. The Russian Army has pointed the way to make the aeroplane's attack, not transitory, but lasting by using it as a vehicle to plant weapons, ammunition and the men to use them in rear of the enemy. In this way the enemy's nerve centres, his command and communications, may be destroyed and his front forced to turn about, leaderless and in confusion. Herein lies one possibility of overcoming the power of the defence. In the first place the enemy's lines of communication and his direct lines of retreat are destroyed by air attack directed against bridges, railway centres and other defiles. The attack is delivered, not by the "hit and miss" methods of bombing, but by the more scientific method of controlled torpedo attack. That is to say, an aeroplane flying above the target directs by wireless an aeroplane of the "Queen Bee" type filled with high explosives direct on to the target. In the second phase load-carrying aeroplanes plant, by means of parachute or helicopter, a small force of light tanks and light machine-gunners and engineers behind the enemy's lines, whilst the enemy's front is engaged with artillery and machine-gun fire.

It is the task of this air-borne force to attack the enemy's headquarters and destroy his means of communication. In the third phase infantry, supported by tanks and artillery, attack his front, and open a gap for mobile forces to pass through and complete the work of the air-borne force. This is one possibility. There are others. For instance, the close co-operation between infantry and tanks has by no means reached the limit of exploration. It may be that the answer to the anti-tank gun will be found in the provision of a large number of light tanks rather than in a comparatively small number of medium tanks.

Whatever the possibilities, are we in a worse position than other nations? Our aircraft and pilots are second to none. Some may criticise our intention to provide comparatively large and slow-moving "infantry" tanks, but our modern light tanks are without equal, and *The Times'* Correspondent himself states that in tank development "we are still ahead of others in methods and the standard of tactical training." Others may criticise the retention of horsed divisional cavalry regiments, but, until we have acquired experience of motorised cavalry and have the machines to replace horses, such criticism is surely premature. Moreover, we possess one priceless advantage compared with Continental nations. Our Army is small; but our industrial resources are large, and their quality is excellent. They are now being organised for a swift turnover to military production. When this process is complete, we shall be in a position to supply ourselves with whatever arms the rapid development of military technique may demand in a shorter space of time than those nations whose armies are on a vast scale, and whose financial resources are already strained by the weight of colossal military budgets.

Finally, let us turn to the "reckless caution" of our tactical doctrine. Let us admit straight away that the element of "caution" is present. The reasons are not hard to seek; they are psychological. By nature we are a cautious race, cool, calculating, lacking *l'audace* of the more excitable Latin temperament. We are masters of the compromise, conservative in thought and lovers of the conventional. When we decide on a course of action we do so after carefully weighing the consequences, and our movements are marked by dogged determination. Where others thrust with a rapier we hack our way with a broad sword. Our character is

reflected in our political, industrial and military history. It is quite true to state that "since Marlborough the British Army has rarely shone in the offensive," but it would be fairer to add that since Marlborough the British Army has rarely been defeated. The British Army may not shine, but it does not easily accept defeat. If, and when, it is called upon to intervene on the Continent, it will, as in the past, be acting in conjunction with allies. Numerically, at the outset, it will be "but a drop in the Continental bucket." In 1914 the instructions issued by the Government to Sir John French implied a strategy of caution; next time it will be the same. The expeditionary force is but an advance guard, and when the main body is six months in rear an advance guard cannot afford to take risks. The border-line between strategy and tactics is ill-defined. Little wonder then that our tactical outlook should err on the side of caution; but to describe that caution as "reckless" is to neglect the factors which dictate it.

To sum up. The handicaps under which the Army has been labouring in recent years are, in the main, attributable to financial stringency. This has resulted in delay in modernising the Army both as regards its technical and domestic equipment, and curtailed facilities for training and developing the art of command. Indirectly it has discouraged recruiting, though the main stumbling-block here lies in the difficulty experienced by soldiers in finding employment on completion of their colour service. The modern soldier is no whit inferior to his predecessor of 1914, and given the means he "will produce the goods." The slow and unequal promotion of officers calls for further remedial measures, whilst non-P.S.C. officers might with advantage be afforded more opportunities to attain command.

It is extremely doubtful whether a policy of sacrificing quantity to quality during the years of financial stringency, as advocated by *The Times'* Military Correspondent, would have led to much better results. It would have entailed considerable risk in view of our Imperial commitments, and we should now be faced with the problem of re-expansion with inadequate reserves.

Our basic problem is to reconcile "the wide and increasing divergence" between what is best suited to meet the various tasks of the Army. So far as Continental warfare is concerned, we, in common with other armies, are faced with the difficulty of overcoming the increasing power of the defence. The solution lies in

new weapons or new methods. To find these research and experiment must be energetically pursued. When found, the experience which we have gained in the past, coupled with an organised industry, will enable us to put them into effect more rapidly than those nations whose resources are already strained by the burden of vast conscript armies.

Our tactical outlook may be cautious, but it is a "caution" in keeping with our national temperament and the circumstances under which we may have to fight. To describe it as "reckless" is to neglect the factors which dictate it and the results achieved in the past.

SMALL TATTOOS IN INDIA

BY *Euroclydon*

Two years ago the Jubilee; last year the funeral of His Majesty King George the Fifth; this year the Coronation; next year we hope the Durbar. A procession of pageantry indeed and it is for this reason that these very inadequate notes on the organization of a small tattoo are written.

No doubt many have experience of the organization of the large-scale tattoos at Aldershot and Tidworth. These, however, are commercial going concerns with continuity of experience and organization to support them and with a publicity system which needs little impetus to sustain a perennial appeal. Many officers are capable of staging less ambitious affairs and require no assistance in doing so. And this brief account is intended merely to provide an *aide-memoir* for those who, having no previous experience, are given the task of organizing a tattoo at short notice.

The great factor in any organization is time. Those responsible for initiating celebrations must consider the form they will take and collect the nucleus of their organization and the framework of their programme in good time. To stage a display hastily conceived at the last moment is to court failure.

General Considerations.—A tattoo like other more professional variety entertainments should combine considerations of light, music, movement and colour and must in fact provide an æsthetic, patriotic, historical or emotional appeal.

These sensations have all to be harmonized on a stage of large proportions, while the usual technical aspects of stagecraft, entrance and exit, variety and sequence, visibility and time must be as carefully observed as they are in Mr. Cochran's successful productions.

First and foremost of all considerations is the selection of the site.

The principal factors that require investigation are:

1. Accessibility to Performers.
2. Accessibility to the Public.
3. Suitability as a stage and auditorium.
4. Accessibility of electrical supply.

There is no golden rule as to the order in which these should be considered.

Their relative importance will depend upon a large number of other factors, some within, some outside, the control of the management and their backers.

In England or where there is a dense population of European inhabitants locomotion will be by car, and mere distance from the main centres of population, as the *Tidworth Tattoo* has shown, is a question of publicity and traffic control and is no bar to success.

In India where it is hard to reach the public even through the vernacular press, where walking is the normal method of locomotion, and where the financial margin available for amusement is small, proximity to the public will probably be the decisive factor in the choice of site.

The usual situation of the Cantonment at some distance from the native centres of population will then call for careful budgeting as regards the transport of directors and performers to stage rehearsals.

The accessibility of the electrical supply usually varies with the nearness of the site to the population centre.

But the suitability of the site as a stage and auditorium is probably the most difficult of all considerations to appraise correctly. And it is a consideration which must be disentangled from a host of other issues which will inevitably be put forward by the members of the Committee, be it Jubilee, Durbar or Tattoo celebration.

It is here that certain aspects of the choice of the officer who will run the show become important. He must be a good mixer, who knows and is known personally by every member of the Committee. He must be tactful and firm. It goes without saying that he must have the complete confidence and support of the military authority under whom he is working and to whom he can appeal as the *ex officio* chairman of the undertaking. But the direct and early intervention of the Garrison or other Commander in discussions is to be deprecated, for against his decisions there is no argument, and it is best that such decisions should be on appeal, rather than that overriding opinion should be given too early and so put a closure to experiment and discussion.

In India the producer should be *persona grata* with the Indian Public and have a broad acquaintance among the Indian gentry

and intelligentsia. One guarantee the producer and his officers must be given and that is their freedom from responsibility for any financial loss arising out of *bona fide* efforts to stage the tattoo. Available funds may be sufficient to dispose of the difficulty, but the limits of the guarantee must invariably be laid down in advance.

The Site.—In choosing the site within the narrow limits which general considerations as already outlined will dictate (unless money is no object and ample funds for building frontages and screens have been placed at the producer's disposal) the chief requisites are:

- (a) An auditorium giving some command of the stage and adequate to seat the volume of public which the Committee expects.
- (b) A stage backed by trees or buildings which will reflect light and limit the setting.
To this stage there must be at least four widely spaced entrances and exits.
- (c) Ample access to the auditorium for the public, with space for car parks and sufficient exits to enable rapid dispersal of the traffic after conclusion of the tattoo.
- (d) Separate routes for the arrival and departure of ceremonial visitors and for performers; the latter being a vital necessity.

The size of the site will depend on the number of performers but too large a stage or too few performers will deprive the display of all dignity. Mass effects are relative to their surroundings.

Finance.—The question of the amount of public support which may be expected is really a matter for the general committee to lay down. They are the local notables. They should know the response which their fellow-citizens will give to the show which is being staged.

Nevertheless it is a point on which the most widely divergent views and estimates will obtain.

Estimates, apart from the estimate of the public likely to fill the more expensive seating, often vary from four thousand to forty thousand a night.

It will be appreciated that standing accommodation, police control, ticket barriers, refreshment contract rebate, and many

other details require a far closer estimation than these divergent figures permit.

On a close estimate of the probable attendances moreover will depend the degree of expenditure which can be permitted and questions of dressings and costumes, lighting effects, extra duty pay, free suppers, etc., will all be vitally affected.

Questions of price of entry will be dealt with later, but where the police feel that the attendance will be greater than they can control, the ticket prices at the lower end of the scale will require adjustment, with the aid of expert advice, not only to attract spectators but to deter the congregation of unmanageable masses.

It is impossible, of course, to give definite figures as regards expenses. The main factors are the cost of electrical installation and supply, the cost of performers' transport, advertising charges, costumes, performers' meals and construction charges. These costs will vary with the degree of official assistance and the amount of voluntary help afforded.

Huge savings can be effected by ready and generous help given by film studios and railways with lighting equipment, by the use, if allowed, of Army transport, by private gentlemen with donations for troops' suppers, firework displays, etc., and by the general suitability of the arena for the purpose. Without these advantages a sum of £4,000 can easily be expended on two full-dress performances, and two dress rehearsals, a large sum to guarantee if no previous tattoo has been run in the particular locality.

Technical Considerations.—Technical considerations involve the supply of electricity and other forms of lighting; the use of background for lighting effect; lay-out of assembly areas, entrances and exits; installation of a telephone system; the preliminary large-scale survey of the site and its photogravure in elevation as a panorama from the auditorium. Plans and elevations so produced serve not only for early rehearsals on the parade ground but also as a basis for later and detailed arrangements.

Unless assistance is available locally from Engineer Field Units the installation of electrical power is best carried out by the commercial suppliers under the supervision of a R. E. officer, who is charged with the whole question of lights for the display. The latter will detail the location of controls, points and circuits

in accordance with the requirements of each item of the programme. In this connection it may be remarked that the detail of lighting for a tattoo is a far more controversial subject than is any general question of electrical supply.

All lighting need not be electric and much money on cable installation can be saved by acetylene or oil flare lights and bonfires for the lighting of courtyards, the illumination of distant architectural elevations, outlines and the like. Some Indian railways have large supplies of torches with asbestos holder tops which are filled with tow and dipped in paraffin immediately prior to ignition. When electricity is used as it normally will be, controls should be grouped together. If, however, economy in cable is a first necessity, controls may have to be dispersed in which case a small telephone system, peculiar to the lighting, should be introduced. Tank Corps and Royal Air Force personnel are eminently suited to help R. E. personnel in the control of searchlights, in the installation of circuits and the preparation of lighting controls.

Stage and Auditorium.—The stage, in addition to a minimum of four equally spaced entrances and exits, demands in rear of it assembly areas and rest areas; routes from those areas to entrances and exits; restaurant accommodation; water points; stables; latrines; office and store rooms and medical aid posts. As regards the auditorium, the staging of seats requires very careful siting to avoid trees and other obstructions, which may be present. Ample entrances and exits for each separately priced area, wide alleys between blocks of seats and good lighting of the whole area are essential.

Outside the barriers the traffic situation is best left to the police but co-operation is essential and an officer should be appointed for traffic duties.

Control.—Control must be exercised by telephone and where elaborate light signals are impossible, many telephone points are necessary. Lines should be duplicated and buried or poled. Some forty miles of cable can easily be expended and the entire personnel of an Artillery Brigade are none too many for the job. The exchange should be close to the control tower and posts established at every entrance and exit to the stage and auditorium, at forming up places and assembly areas. In practice this may mean upwards of twenty-five telephones though the

number can be reduced with experience. Generally the handling of unexpected crowds is always much simplified if there are plenty of telephones. The control tower needs to be carefully organized. In it are grouped—

- (i) The Director of the Tattoo.
- (ii) The Director of Communications who synchronises all watches.
- (iii) The Director of Lighting and his Operator.
- (iv) An officer conversant with every detail of the item in progress.
- (v) A time-keeper calling the time.
- (vi) A clerk calling the action.
- (vii) A telephonist receiving reports from assembly areas, ready to give the ENTER and COMMENCE, which the Director himself will actually order.

Mapping and photography can be carried out by military personnel; and the former should be to such a scale that any tree or obstruction on or about the stage can be plotted. Reconstruction on unit parade grounds can then be faithfully carried out. Panorama photographs should be large enough for lighting effects to be clearly indicated on them for various stages of the performance.

The Director of Lighting can then decide on his method of lighting and considerable economy will result both in the number of visits paid to the arena and the material used to achieve the required results.

Positions of assembly and readiness, entrances and exits should be lettered, telephone points numbered and blocks of lights given place names to simplify control.

The Committee.—We have already dealt with those considerations which should be present in the mind of the Director, when he accepts charge of the undertaking. His next step will be to sketch out a draft programme for discussion and to nominate his principal assistants and committee. The worst way to do this is to detail one officer from each unit or department to become a member of the committee and to offer a turn. The best way is for the director—

- (a) to choose a technical executive committee;
- (b) after discussion with garrison and unit commanders, to choose officers each to take charge of one particular item;

- (c) to appoint other officers as required for general executive duties;
- (d) to appoint an officer to the Garrison Staff, with the authority of a staff officer to the garrison commander, to act as secretary; and
- (e) to "Co-opt" civilian members to act as publicity, press and liaison officers and possibly for treasury and box-office duties as well.

A suitable committee may be composed as follows:

Executive Committee ...	{	Chairman.
		Vice-Chairman and Director of the Tattoo.
		Director of Communications.
		Director of Lighting.
		Treasurer and Box Office (may need two officers).
		Secretary.
Summoned as and when required ...	{	Director of Music.
		Director of Stores.
		Director of Messing and Supplies.
		Director of Publicity and Press Liaison.
		Members of the Celebration Committee, if any, for liaison with the public.
		Director of Traffic and Police Liaison.
		Officer i/c Printing.
		Officer i/c Displays.
		Legal Adviser.

The full committee should meet at regular stated intervals and the executive committee with such others as are required can be summoned daily if necessary.

Additional officials will be—

Working under the Director—

Medical Officer i/c Troops.

Veterinary Officer.

Medical Officer i/c Auditorium.

Stage Manager and Guides.

Working under the Director of Communications—

Telephone Staff, Linesmen.

Switchboard control men.

Telephone Staff, linesmen and switchboard control men for electric lighting and telephone control circuits.

Working under the Box-Office Manager—

Box-Office Staff, Gate Staff,* Seating Block Guides.†

Programme Accountant and Programme Sellers.†

* 3 Per Gate.

† 4 Per Block.

Working under Medical Officer i/c Auditorium—

First-Aid Detachment and Assistant Medical Officers in Auditorium.

Working under Director of Traffic Control—

First-Aid Detachment and Assistant Medical Officers on Traffic Approaches.

Internal police arrangements under an Inspector.

In India the awakening of a large public and the artificial creation of a demand are as yet little practised. Organized publicity of the type to which Europe is accustomed is almost non-existent outside the presidency towns. Where a bank manager can be persuaded to act and where large shops exist, box-office and publicity duties can perhaps be undertaken by them. The box-office attracts customers to the shops and their advertising arrangements can be used to supply the framework for the necessary publicity arrangements.

An officer in charge of printing is very necessary. He will pick up sufficient technical knowledge in a short time, whereas a number of different individuals visiting the printer only result in delay and chaos. The officer in charge of printing should also canvass for and arrange advertisements in programmes and other tattoo literature.

Programmes.—The Chairman and Director will probably produce a cock-shy at a programme from their own knowledge of the resources of the garrison and will, as already explained, discuss it with the commanding officers of units. To write round for ideas in the first place often produces little response, at any rate until discussion takes place.

Here a word of warning is necessary. History is still closely interwoven with religion and politics in India and discretion is required as regards the production of historical tableaux.

The individual contributions determined, the arrangement and timing of the programme, the allocation of assembly areas, routes, positions of readiness, entrances and exits require co-ordination.

It is not always understood that contrast is essential in the arrangement of the succession of the items; that the performance of massed bands is a suitable item to insert at points in the programme when the correct timing of events may have to be restored; and that successive displays should enter from divergent

entrances, using more than one entrance and more than one exit, so as to fill the stage.

Items should follow one another continuously without any interval unless such interval is in itself desirable for purposes of effect.

The duration of the item is a matter of difficulty in which tact and brutality will both be required.

As a general guide fourteen minutes is long enough for any one display. Three minutes is the shortest period in which one can hope to achieve adequate effect while ten minutes of massed bands will generally suffice.

Oriental audiences, however, will tolerate and enjoy displays of more than fourteen minutes and it may be necessary both for the pleasure of the audience and the *amour-propre* of the performers to exceed these timings. Often an oriental display such as dancing does not get going in less than a quarter of an hour but against this the Director must be ruthless if he is to stage an affair which is not to pall.

The following are the timings of one year's *Tidworth Tattoo** and the timings of a less pretentious affair† organized in India.

A total programme of 2 hours 15 minutes exclusive of an interval is the absolute maximum which can normally be carried through.

There are innumerable difficulties, of course, which training and leave impose both on the programme and on the dates of a tattoo, while the weather and such purely oriental complications as migration to the hills, will need consideration, the one at home, the other abroad.

Rehearsals and Timings.—The question of rehearsals is a matter on which local conditions exercise much influence.

Where the distance from barracks to the arena makes transport costs prohibitive, rehearsals will be limited very largely to parade grounds and only officers and group column leaders of large massed effects and stage officials can be taken to the arena for skeleton rehearsals.

Minutes. *2, 5, 5, 15, 10, 6, 14, 15, 3, 15, 10, 10, 14, 10.

Minutes. †2, 3, 13, 14, 16, 10, 10, 16, 10, 9, 20¹, 11, 5, 4.

¹Khattack Dancing.

Includes 10 minutes interval.

In any case the Director should abstain from attending item rehearsals until the evolution of the movement is nearing perfection and the time required for performance has been learnt by experience.

He should then attend to cut the item, if necessary, and to offer general advice.

For instance, a musical ride should properly commence with some trotting but experience will show that for display, the less the better.

Where pipe bands are being co-ordinated, many difficulties arise, for the scores of many of even the better known tunes have several interpretations and the question of grace notes will cause dusky McCrumlins to come to blows and C.O.s to cut one another for years after the performance.

Wild tribesmen who travel two hundred miles to dance in public are loath to leave the arena after fourteen minutes when a normal dance lasts from two to five hours and Directors of Music require very careful handling before they will "cut out" a movement to enable lost time to be regained. Once, however, the individual items have been compressed within the requisite limits of the programme, rehearsals can be called on a skeleton arena laid out near barracks, and each display put through its paces. Here the stage manager functions for the first time. It is his duty to get performers along their routes and officers in charge of gangs reporting at each stage of their progress. For this purpose the final time-table will include at least five timings:

- (a) position of assembly;
- (b) position of readiness;
- (c) entry;
- (d) commence; and
- (e) exit:

(c) and (d) may be simultaneous, but where more than one body of performers are concerned and distances to the central point of performance are unequal they will differ.

Lighting has to fit in with the time-table and the Director of Lighting should have a series of marked panoramas, compiled on experience gained at unit rehearsals. He will then illuminate or black out groups of lights or areas, working to the call of the time-keeper and using his own knowledge of the item in the event of a time lag. An officer connected with the immediate display in progress should be seated at his side.

Miscellaneous Considerations.—There remain many points which require attention. Among these are legal liability to the public who have paid for admission. If, for instance, standing room is allotted on an elevated platform, tickets for the area should bear a clearly printed notice of disclaimer in the event of damage due to a fall. There is legal liability for entertainment tax and for accidents to performers.

Programmes for sale must be carefully checked and issued only on the signature of the seller. Seat inspectors should move round the auditorium while it is filling up and check occupants' right to their seats.

Boy Scouts can be useful to the authorities in the auditorium in a multitude of ways.

Complimentary tickets are always a problem. To many the fact that the show must pay its way is often entirely obscured by the fact that they have contributed in some way to its success. All these persons will expect and only too often receive free tickets. The allocation of complimentary tickets is best put in the hands of a small independent committee with authority to issue up to a certain value determined by the treasurer. A military representative will not forget the military hospital, Q.A. Staffs, Old Comrades Association, District Soldiers Board and the badly paid priesthood of India; while each committee member should be asked to submit a list of persons who have given him assistance without pecuniary reward.

The sale of tickets requires some imagination. If a selling agency exists it is best to make use of it. If none exists an agency must be created. The worst place to sell tickets is in barracks. The best place is from an office in the ordinary shopping centre of the town. If the community is divided in its habits and mode of living, more than one ticket office will be wanted. Telephones must then be installed to allow the central office to co-ordinate booking. Some preference can be given to military and civil officials by opening the booking plan privately two or three days in advance, but any attempt to supply a number of seats in response to a bulk demand from a government office will be fraught with failure. Recipients quarrel over the sub-allocation of the bulk allotment and the box-office unfairly gets the blame. Individuals must book their own seats; that is the only solution.

How seats are priced will vary with the locality and the

season. A little thought will disclose that the early cold weather is a lean period after leave, the end of the cold weather a lean period after Christmas festivities. Except in large towns, where mercantile interests predominate, the prices which the public will pay will not much exceed those ruling for the best cinema accommodation. Again, since attendance is a matter of duty as well as pleasure the official world does not welcome an exaggerated price.

At the other end of the scale is the crowd. At Home, prices are well understood. In India prices will be a compromise designed to attract sufficient to fill the auditorium while keeping the squares outside in order. Up country eight annas is too much in all probability. Down country in the very large centres such a price might be charged.

The compilation of the Souvenir Programme is a heavy task for the Director. It should contain—

- (a) a programme and time-table of displays;
- (b) band and pipe band programmes with notes on the music;
- (c) historical notes on units taking part in their order of precedence, not forgetting Naval, Air and Police Forces if they also participate;
- (d) a short note on each display and its meaning; notes in the vernacular should be added;
- (e) list of patrons, committee members and officials with an expression of thanks to those who have assisted;
- (f) historical information about the arena where the tattoo is staged;
- (g) the words of any song or hymn in which the public are expected to join; and
- (h) advertisements.

In India a broadsheet with the outlines of the programme printed in vernacular and decorated with some device or photograph of Royalty for sale in the cheaper seats at about one anna will be of value.

A lost property office is a minor activity of the box-office officials.

Finally a proper audit should follow closure of the books, and it is sound policy to have this done by a firm of accountants if their charge is not excessive.

It only remains for the Chairman or the Director to express his thanks in a series of personal letters which he should have ready in his own handwriting for despatch the morning after the conclusion of the show; and to tie up the file and diary of the tattoo for some fortunate successor.

Such is a brief and no doubt very inadequate outline of the organization and production of an *ad hoc* tattoo. It is no more than the framework of a successful production in the past where there were no precedents, no money, no equipment, no costumes, no previous experience and for some time no available arena.

That such a show was carried through without financial loss or friction and scrupulously to time has emboldened the author to set down these notes for the help of producers who may be faced with similar problems in the future.

INDIAN CAVALRY REORGANIZATION, 1937

BY MAJOR B. H. CHAPPEL, 2ND PUNJAB REGIMENT

It is perhaps a truism to say that administration is the servant of tactics and strategy, but it is such an important servant that it can not afford to be ignored. The large problems of maintenance, whether they be of personnel or of material, must be solved in peace; for to make a major administrative change once war has broken out always proves difficult and sometimes impossible.

The organization of Indian Cavalry is of course a subject that touches many officers personally, but it is also a subject of interest to the army as a whole. To appreciate the changes now being made it is necessary to review briefly the history of Indian Cavalry since 1914.

At that time there were in the Indian Army 39 regiments of cavalry, of which only three were maintained, as the British Cavalry was maintained, directly by Government. The remaining thirty-six were silladar units.

In origin this was a yeomanry system under which the soldier supplied and maintained his horse, his clothing and practically all his equipment except his rifle. He also provided for the upkeep of the lines in which he lived. In return he received a higher rate of pay than the non-silladar soldier, whose needs were furnished by the Government. Rich and influential silladars were allowed to enlist fellow countrymen and to provide the horse and equipment which their poor relations were unable to afford.

In course of time the increasing efficiency of the army called for horse and equipment of better quality than that obtainable by most silladars, so their purchase was undertaken by the regiment, while the recruit was required to pay, on enlistment, such *assami* as he could. The remainder he borrowed from regimental funds and paid back during the course of his service. The demand for an improved standard was naturally enough followed by rising prices. In spite of help from Government in the form of grants of land for horse farms, regiments were faced with the prospect of having to make further cuts from the

pay of the soldier. Since the margin of pay remaining to the man was barely sufficient for the support of himself and his family, it was in 1914 already becoming clear that an increase in pay would have to take place sooner or later.

Such then was the silladar system. It had very definite advantages: It was extremely cheap to Government; it was popular with officers and men and attracted an unusually fine stamp of recruit; moreover it had proved itself in small campaigns in Egypt, on the Indian frontier and elsewhere.

With the outbreak of war the maintenance of silladar regiments, but not of the depots they left behind, was taken over by the State. It was not long before difficulty was experienced in maintaining silladar regiments, although at the time few of them had been heavily engaged. In fairness it must be admitted that some of these difficulties were due to the defects of the Indian Army recruiting and reserve organization as a whole rather than to inherent weaknesses in the silladar system.

The lack of an adequate reserve in peace made it impossible for depots to keep pace with the demands of their regiments. There was great diversity in the class composition of cavalry and no system of linked regiments. Reinforcements had, therefore, to be drawn from active regiments remaining in India. On the material side Ordnance Depots found it equally difficult to replace individual patterns of equipment. But the financial difficulties of the system were proving the greatest of all. Depots had remained silladar, regiments had not. The transfer of a man from a silladar depot to a regiment no longer maintained on that system involved extreme complication. The value of his estate, if he were killed or invalided, was hard to assess. Moreover, the great need of recruits made it impossible to demand the *assami* in cash. If the *assami* was advanced from regimental funds, the man was usually drafted to the front long before he could refund the loan and often enough he was drafted to a regiment other than the one which the depot belonged.

In 1920 an Army in India Committee was formed to examine the system. The advantages and disadvantages were carefully weighed and it was decided to abolish the system. The decision marks the end of what may be called the first phase of cavalry organization in India. Before the next phase is described, the reduction of Indian Cavalry for reasons of economy and

readjustment to a total of 21 regiments is to be noted. For this purpose thirty-six regiments were amalgamated, each pair producing one composite non-silladar regiment. Three regiments retained their pre-war identity intact.

At the same time all regiments were organised on a basis of a Headquarter Wing and three squadrons. It had been one of the lessons of the war that if a commanding officer is to control his unit effectively in battle he must have at hand the means of doing so. The new arrangement had the advantage of concentrating specialists such as machine-gunners and signallers in a single sub-unit and was a distinct improvement on the pre-war organization of four squadrons, each of which furnished a proportion of specialists.

To avoid reinforcement difficulties in a future campaign, the 21 regiments were divided into seven groups each of three regiments. The classes of recruit taken were adjusted so that all three regiments of a group became identical in composition. In addition seven stations were chosen as likely to remain suitable permanent locations for regiments allotted to internal security duties; the intention being that one regiment of a group should be fixed at a permanent centre and that it should become the group depot in war. Actually the allocation of these centres has had for various reasons to be modified from time to time.

As a matter of interest the grouping of regiments, their class composition and the group centres, as they existed in January 1937, are shown in the table below:

	<i>1st Group.</i>		<i>2nd Group.</i>		<i>3rd Group.</i>	
Group centre	.. Ferozepore	.. Lahore	.. Lucknow.			
Class composition	.. Hindustani Musal- mans. Musalman Rajputs Rajputs Jats	.. Punjabi Musalmans Sikhs Dogras	.. Punjabi Musalmans. Sikhs. Jats.			
Regiments	.. Skinner's Horse 2nd Royal Lancers 3rd Cavalry.	.. Hodson's Horse Probyn's Horse 6th D.C.O. Lancers.	.. 7th Light Cavalry. 8th K.G.O. Light Cavalry. Royal Deccan Horse.			
	<i>4th Group.</i>		<i>5th Group.</i>		<i>6th Group.</i>	
Group centre	.. Jubbulpore	.. Rawalpindi	.. Jhansi.			
Class composition	.. Dogras Sikhs Punjabi Musalmans	.. Pathans Sikhs Musalman Rajputs	.. Jats. Kaimkhanis. Rajputana Jats.			
Regiments	.. Guides Cavalry P. A. V. O. Cavalry Sam Browne's Cavalry.	.. 13th D.C.O. Lancers. Scinde Horse 15th Lancers	.. 16th Light Cavalry. Poona Horse. 18th King Edward VII's Own Cavalry.			

	<i>7th Group.</i>
Group centre ..	Delhi.
Class composition..	Sikhs. Jats. Punjabi Musalmans.
Regiments ..	19th K. G. O. Lancers. 20th Lancers. The Central India Horse.

In peace each regiment trained its own recruits and remounts.

The group centre regiment undertook also the training of reservists for the whole group.

In war the group centre regiment became the depot for the group and took over both the training of recruits and the provision of reinforcements, in addition of course to its normal internal security role.

Apart from any question of the merits of the silladar system, this organization was obviously a great improvement on the arrangements which had existed before the war. But the process of time was to reveal certain other defects.

In peace, regimental commanders have had to spend an excessive amount of their time on the training of recruits to the detriment of the training of the unit for war. On mobilization recruits would have had to be transferred to the group centre and remounts and unfit horses disposed of. Regiments required to take part in operations would have had to await the arrival of trained men and trained animals before they were up to war establishment. The complicated cross-postings, which were inevitably involved, must have added appreciably to the work of the staff and the burden on the railways in the critical days of mobilization.

Until they were completed, however, regiments allotted to cavalry brigades, to divisions and to covering forces would have been below establishment, while the group centre regiment would have been ill-fitted in the early stages at least to take over its war role of group depot.

Once the drawbacks of the post-war reorganization had been realised and the main lines of a new organization decided, an Indian Cavalry Committee was assembled at Army Headquarters. to consider how the necessary reorganization could be arranged with the least dislocation to regiments.

The present changes, which terminate the post-war organization of cavalry, involve the creation of three groups each consisting of six active regiments and one training regiment. The 15th Lancers, Sam Browne's Cavalry and the 20th Lancers have been selected to become training regiments. The new organization is shown below:

	<i>1st Group.</i>	<i>2nd Group.</i>	<i>3rd Group.</i>
Location of training regiment.	Jhansi	.. Ferozepore	.. Lucknow
Class Composition..	Musalman Rajputs Hindustani Musal- mans Kaimkhanis Rajputs Jats.	Musalman Rajputs Punjabi Musalmans Pathans Sikhs Dogras.	Punjabi Musalmans. Sikhs. Dogras.
Training regiment..	15th Lancers	.. Sam Browne's Cavalry. (12th Frontier Force).	20th Lancers.
Active regiments ..	Skinner's Horse (1st Duke of York's Own Cavalry).	Hodson's Horse (4th Duke of Cambridge's Own Lancers).	6th Duke of Con- naught's Own Lancers. (Watson's Horse).
	2nd Royal Lancers (Gardner's Horse).	Probyn's Horse (5th King Edward VII's Own Lan- cer's).	7th Light Cavalry.
3rd Cavalry	.. The Guides Cavalry (10th Queen Vic- toria's Own Frontier Force).	8th King George's Own Light Cavalry.	
16th Light Cavalry	Prince Albert Victor's Own Cavalry (11th Frontier Force).	.. The Royal Deccan Horse. (9th Horse).	
The Poona Horse ..	17th Queen Victoria's Own Cavalry).	13th Duke of Connaught's Own Lancers.	.. 19th King George's Own Lancers.
18th King Edward VII's Own Cavalry.	The Scinde Horse (14th Prince of Wales's Cavalry).	.. The Central India Horse. Own (21st King George's Own Horse).	

It will be seen that the eighteen active regiments are remaining on a class squadron basis. A major alteration, the substitution of one class for another, has been necessary in only one instance.

War establishments of active regiments remain unchanged except for small adjustments of personnel and the replacement

of certain horses by light cars and vans. Squadrons will consist of three sabre troops and one light machine-gun troop, as they do at present.

In peace, however, active regiments have been relieved of their recruits, although they remain responsible for the training of their remounts. To provide against the anticipated number of untrained and unfit animals on mobilization, an increase of some eighty horses in the peace establishment of each regiment has been made, so that the regiment should have its full complement of trained animals with it when mobilization is ordered.

The changes being made in the three units, which are to become training regiments, are necessarily greater. In the first place the essential role of the training regiment will be to provide at all times trained men for the active regiments of the group.

In peace the standard required will be that of a trained recruit ready to join the ranks and the peace establishment of the regiment has been designed with this end in view. For reservist training, another peace-time responsibility of the training regiment, extra instructors will be attached temporarily from active units. Reservists will belong to the group as a whole and not to any one particular regiment. While every effort will naturally be made to post a reservist in war to the regiment with which he served in peace, this may not always be possible.

After mobilization the training regiment will have to undertake the training of specialists as well as that of the ordinary sowar, and to this end arrangements have been made for active units to despatch the extra personnel required to help with this specialized training to their training regiments.

As regards organization the training regiment will consist of headquarters and three squadrons. The headquarters includes a remount training troop responsible for the provision of trained horses required within the regiment itself.

The majority of headquarters personnel are for administrative duties and their appointments, as well as appointments to the remount troop, will be permanent ones.

Each squadron will be affiliated to two regiments of the group and will consist of three class composition troops. Squadron officers and trained other ranks required for instructional duties will be seconded for limited periods from their active regiments.

Such is a brief outline of the new organization for the Indian Cavalry. It remains to sum up what are thought to be the main advantages of the change: Firstly, commanding officers of active regiments, relieved of their recruits, will be able to concentrate on the training of their units for war. Secondly, the regiment will have sufficient horses in peace to enable it to mobilize within its own establishment of animals. Thirdly, the recruit will be trained in peace at the centre which would be responsible for his training in war and those centres themselves can be expanded, with little complication, to meet a large influx of recruits on mobilization. Fourthly, a large number of difficult cross-postings, inevitable on mobilization under the previous system, have been eliminated. And, finally, the change will effect a small saving to the State.

THE SINO-BURMESE BOUNDARY

BY CAPTAIN J. B. P. ANGWIN, R. E.

To the average soldier in India, the "Frontier" means the North-West Frontier and except for the troops in Burma, the section of the General Staff which deals with them, and those officers who choose the Burma Military Police as a means of escape from the snares or stagnation of cantonment life, the North-East Frontier is a vaguely known area presenting probably a less concrete picture even than the fastnesses of Abyssinia.

Nevertheless, bordering as it does on Tibet, China (Yunnan), French Indo-China and Siam, it has its military problems and is a constant responsibility to the Civil administration.

Throughout the length bordering on China, the boundary is defined by a treaty of 1894 (modified by an agreement of 1897) and is everywhere delimited and demarcated except for two sectors, one in the extreme North and one further South dividing Yunnan from the portion of the Northern Shan States known as the Wa States. (See map.)

In both these sectors, until recently, it has been preferable to preserve the *status quo*, although from time to time incidents have occurred which have brought the question of delimitation of each sector into prominence. In the southern sector an attempt at delimitation was made in 1899-1900.

It is with this southern sector of about 200 miles in length that this narrative is concerned.

Incidents in the Wa States, culminating with disturbances in the summer of 1934, rendered it desirable from the British point of view that the boundary should be delimited, and at the same time the Nanking Government, under pressure from Yunnan, wished to effect a settlement.

During the attempt at delimitation in 1899, negotiations broke down at an early stage, but the British representative, Sir George Scott, succeeded in moving from end to end of the region on the eastern flank of an important range described in the treaty, and the survey party, under Captain Renny Tailyour, established the position of this range for much of its length.

Renny Tailyour's map, made under conditions of great difficulty and without the assistance of the means of communication

we enjoy to-day, proved remarkably accurate as far as it went, and was of great help to us.

This map enabled Scott to give his interpretation of the treaty line, an interpretation which has ever since been known as the Scott line.

The decision to effect a settlement of the boundary at the present time resulted in the appointment of a Commission consisting of two British Commissioners, two Chinese Commissioners and a neutral Chairman, with British and Chinese survey parties attached.

The duties of the Commission were to determine the treaty line on the ground and mark it on the map, and if necessary to propose modifications based on more exact local knowledge and suitable to present conditions.

This sounds a simple task, but the following factors made it not so easy.

In the first place the treaty, made at a time when the country was little known, was vaguely phrased and, on the face of it, open to misinterpretation.

Secondly, the existing map was everywhere somewhat sketchy, in places very sketchy and in places totally blank.

The task of the survey party was, therefore, to make a map in advance of the Commission. This again sounds simple, but the following factors made this also more difficult than normal survey operations:

Firstly, the survey party was insufficient to survey the whole area, yet until the Commission had a map and had studied local evidence, the boundary could not be determined and the limits to which the survey might be restricted could not be defined.

Secondly, any form of preliminary reconnaissance was out of the question.

Thirdly, the inhabitants of the Wa States, known to be head hunters, were expected to be inimical, so that strong escorts would be necessary, and the mobility of surveyors accustomed to living on the country and moving without restriction would be much reduced.

Fourthly, there were few hours of clear light available before a morning haze developed which would delay survey work if it did not stop it altogether.

The survey plan, therefore, had to be fluid, so that a change of direction could be made at any time without delay, and the work had to be a combination of reconnaissance and accurate survey.

The Commission assembled at Hohsawn at the northern end of the sector at the beginning of December and was engaged for about two months considering the treaty and recording evidence of the local people.

During the first month, in the absence of any specific instructions, the British survey party occupied itself with survey in the Hohsawn-Lufang area, keeping clear of the localities likely to come under the consideration of the Commission.

On 4th January 1936 instructions were issued for survey to proceed along a well-defined range running east and actually forming part of the Scott line. A belt of country at least six miles wide on each side of the range was to be surveyed.

As all preliminary preparations had already been made for a move in any direction, the British survey detachments moved off in two groups, one on the north of the range and the other on the south, with the object of surveying the line up to Point "A" (the first treaty point defined by latitude and longitude) and joining up there in about a week. We had already ascertained that a peak on this range lay very close to the co-ordinates given in the treaty.

The survey party consisted of *myself* in charge, and four detachments, one Indian officer triangulating, three Indian officers plane-tabling and about 50 instrument carriers.

The escort, providing a platoon for each detachment and one in reserve, consisted of one platoon of British infantry, two platoons of Burma Rifles, two platoons of Burma Military Police, a small detachment of Madras Sappers and Miners, and the necessary services.

The survey party with escort was given the code name of Surcol. All personnel were already hard and fit as a result of work in the Hohsawn area and were all agog to break new territory.

The two groups met at Point "A" according to plan, although the southern group, which arrived first, met with a certain amount of opposition from villagers near Point "A" and recourse to force to reach this point was only just avoided. Subsequently, when the people had become accustomed to us and their mercantile

instincts had developed, they fraternised freely with the troops and brought us in fresh vegetables. They were very jungly and their sense of humour was greatly tickled by the most ordinary things, such as cigarette lighters, magnetised penknives and binoculars, while the simple act of drinking from a water bottle sufficed to send them off into hoots of laughter.

From Lufang, in the clear air of December, a magnificent view over the Wa States had been obtained; a tumbled mass of hills stretching away to the south-east to our final objective, Loi Anglawn, whose vague outline was dimly discernible nearly 100 miles away as the crow flies, near the southern end of the undemarcated sector.

The view from Lufang had enabled plans for the initial stage of the work to be made although successive barriers of high ranges, the nearest seen to be heavily wooded, prevented a programme being made very far ahead. Moreover, a reference had to be made to the Commission for approval to each forward move, touch being maintained with the Commission by wireless.

As a basis for an accurate map, triangulation is required. Without entering deeply into technical details, this involves ascertaining the exact position on the earth's surface of a large number of points so that they can be plotted on paper preparatory to survey of the detail. This triangulation necessitates not only work on the ground, but lengthy calculations before plotting can be done. Normally, therefore, triangulation is carried out at least one season before detail survey, and the calculations are done in comfort in an office, as also the plotting of the points which requires meticulous accuracy.

In the present case both triangulation and detail survey had to be done not merely in the same season but, by reason of the necessity for concentrating Surcol as far as possible, the work in the field for both purposes had to be carried out more or less on the same day. The triangulator had, therefore, to make his observations to points as far ahead as possible and to calculate most of the night. A Garhwali officer was chosen for this important work and never once did he fail in his task of providing sufficient points ahead of the detail surveyors.

For the detail survey two topographers were given the task of survey, one on each side of the main range. The remaining

topographer carried out a larger scale survey, in more detail along the ridge, keeping up with the others as best he could.

The work was a fight against time and the general idea was "march and work." That is to say, whilst the main column with the transport would make a march, the survey detachments, each with its own escort, would push off to the flanks moving light and, working *en route*, would come into the new camp in the evening.

The country is a tangle of precipitous hills and as the Wa likes to move as straight as possible and has little idea of grading tracks, the column marches themselves were a sufficient tax on troops and transport. The survey detachments and their escorts, making circuitous moves over tracks scarcely worthy of the name or across country, performed almost superhuman feats of endurance.

Guides, if obtainable, were unreliable and in country as yet unmapped it was impossible to say in the morning exactly where the new camp would be in the evening. Accordingly it was often very difficult to ensure that the wandering detachments would be able to locate the main column at night, particularly as, in order to obtain water, camp often had to be made far down in constricted valleys. As far as possible touch was maintained by helio or, if hazy, by lamp, but sometimes this was not possible and one had then to rely entirely on the topographical sense of the surveyors with the detachments bringing them in to the right place before dark.

Occasionally the main column halted for a day, or perhaps two, to enable a wider belt to be surveyed, but these halts afforded no rest to the survey detachments and whether the column was moving or at the halt, it was seldom that any survey detachment got in until just before nightfall.

Then they had to have their evening meal and work far into the night inking up their day's work and preparing the trace from which the combined running record of work was produced.

Only once did a detachment get "lost" and it was nearly midnight when the exhausted party came in guided by Vérey lights, bugles and other strange noises.

Sometimes detachments went out on their own for a few days at a time, but such "picnics" were restricted to the minimum and it was always with a sense of relief that one saw them return.

Probably each detachment climbed and descended an average of at least 3,000 feet a day for the whole period of Surcol's existence, and it was not long before all ranks were regarding 1,500 feet an hour as quite an easy rate of climb, despite mountaineering text-books.

The Wild Wa proper appear to be confined to a limited area in the centre of the Wa States. Around them is a belt of less wild Wa and encircling these are various races, Shans, Loi-La (tame Wa), La-Hu, Muhso, Shan Tayok (Chinese Shans) and a sprinkling of Kachins.

As survey progressed, it became clear that the high range of the treaty line was not only a geographical dividing line but also in the main an ethnographical barrier forming approximately the limit of the Wa. This is not absolutely the case as there are numerous instances of filtration both ways across the range. In many places the more peaceful people outside the range lay panjis* against the Wa, on all paths. We were fortunate in getting only two casualties from these devilish defences, the attached Civil officer and one surveyor receiving foot wounds. I myself narrowly escaped injury as I walked over a belt of panjis quite unconsciously, but as I was going in the same direction as they pointed—towards the Wa—and the man behind me spotted them, I took no harm.

The characteristics of the various races overlap to some extent. The main distinctions seem to be language and gradations of nudity and dirt. There are head-hunting Loi-La and non-head-hunting Wa; or so it appears.

We came across Wa villages which stated that they had not head-hunted for many years. We took this statement with a grain of salt as the head-groves appeared to contain fresh heads. There seems to be no doubt, however, that, in the outlying parts at any rate, the Wa is beginning to be a little ashamed of the practice, despite the age-old superstition that a successful head-hunting season is followed by good crops.

The head-groves, flanking an entrance to the village, resemble rows of giant mushrooms. Hollowed-out tree stumps contain the heads which are first encased in a bamboo basket. Over the stump is placed a large, flat stone, and once the head is put inside, after

* Panjis—bamboo stakes with both ends sharpened and hidden in the grass with one end stuck in the ground, the other pointing towards the enemy. Will pierce any form of foot-gear and are sometimes said to be poisoned.

its period of display on the village totem pole, woe betide any one who removes the lid. A hole in the stump and basket allow a view of the grisly contents, but it is doubtful whether even one of the detective heroes of fiction could deduce the exact age of the head from the half-revealed remnants of flesh.

The survey may be described briefly in five phases. (See map.)

The first up to the Salween-Mekong watershed at Point 2611, next the Mongkatum area, then the Hsikyen Tao—Aihsoi area, the Point "B"—Chingmaw area and lastly the Chingmaw—Panghsang area.

At an early stage we found that the existing strength could not hope to complete the whole area which we expected to have to do, so another triangulator and another planetabler were sent for from Burma to start working up from the South. These were escorted by troops from the Southern Reserve Column, and, working on their own, controlled only by wireless, completed the southern phase, Panghsang-Chingmaw. Their work was without incident of note except for constant rumours of Chinese bandits, who were undoubtedly in the neighbourhood but who fortunately failed to assert themselves.

In the North, Surcol got through the first phase with only minor annoyances, veiled hostility and distrust, which revealed itself after our passage, in the form of destruction of survey signals.

The second phase, the Mongkatum area, was more exciting.

Inter-tribal feuds between various sections of the Wa, Loi-La and Shan Tayoks resulting in head raids and innumerable burnt-out villages had left the area in a state of tension. It was only by exercise of admirable restraint by all personnel of the column that real trouble was avoided.

As it was, force had to be resorted to on one occasion to enable the survey plan to be carried out and on another occasion so that camp could be made.

To carry out survey to the best advantage it was almost imperative to penetrate right into the Wa proper, but it was known that such penetration must result in punitive measures which were undesirable, so that we were in the extremely awkward position of having to "drive as near the edge" as possible.

The tendency to go just a little bit further is as strongly marked in the surveyor as in any one else and the attraction of a lovely bald peak, just in the forbidden zone, is a magnet which takes some resisting.

In the third phase, we passed first through the territory of the Aihsoi, a people locally renowned for their fierceness and predatory habits, although they are mainly Christians, converts of the American Baptist Mission. They received us with unexpected friendliness and afforded us considerable help by supplying us with our first reliable guides to pilot us through the country to the south, hitherto a white patch on the map.

This area was found to contain a vast number of large Wa villages, often of several hundred houses. Whilst not openly hostile they regarded us with suspicion so that it was necessary to feel our way through with additional caution.

The Commission which followed us through this area some weeks later found the attitude of the people greatly improved.

Strangely enough in the middle of this wild area was one of the biggest Christian villages we encountered.

The final phase was from Point "B" to Chingmaw where, in April, we connected up with the detachment from the South and completed the survey of the treaty line. This zone was notable chiefly because of the haze which descended almost like a pall at the beginning of March and at times almost stopped work altogether. Here also the main range was found to be an intricate mass of devil's cauldrons and precipitous limestone crags which we did not appreciate at the end of a hard season.

At Chingmaw we spent a few days of comparative rest in a well-built semi-permanent camp made by the Southern Reserve Column.

The long march back to civilisation was made by the southern route, about 20 stages to railhead at Lashio.

As the Commission had been unable to complete its work south of Point "B," the British Commissioners took the opportunity to march by an indirect route and acquaint themselves with the little known country west of the Scott line, which the southern survey detachment had mapped.

So late in the season, haze was very bad and the vegetation so dry that danger from jungle fires became daily more imminent. We, therefore, wasted no time and were fortunate to get through

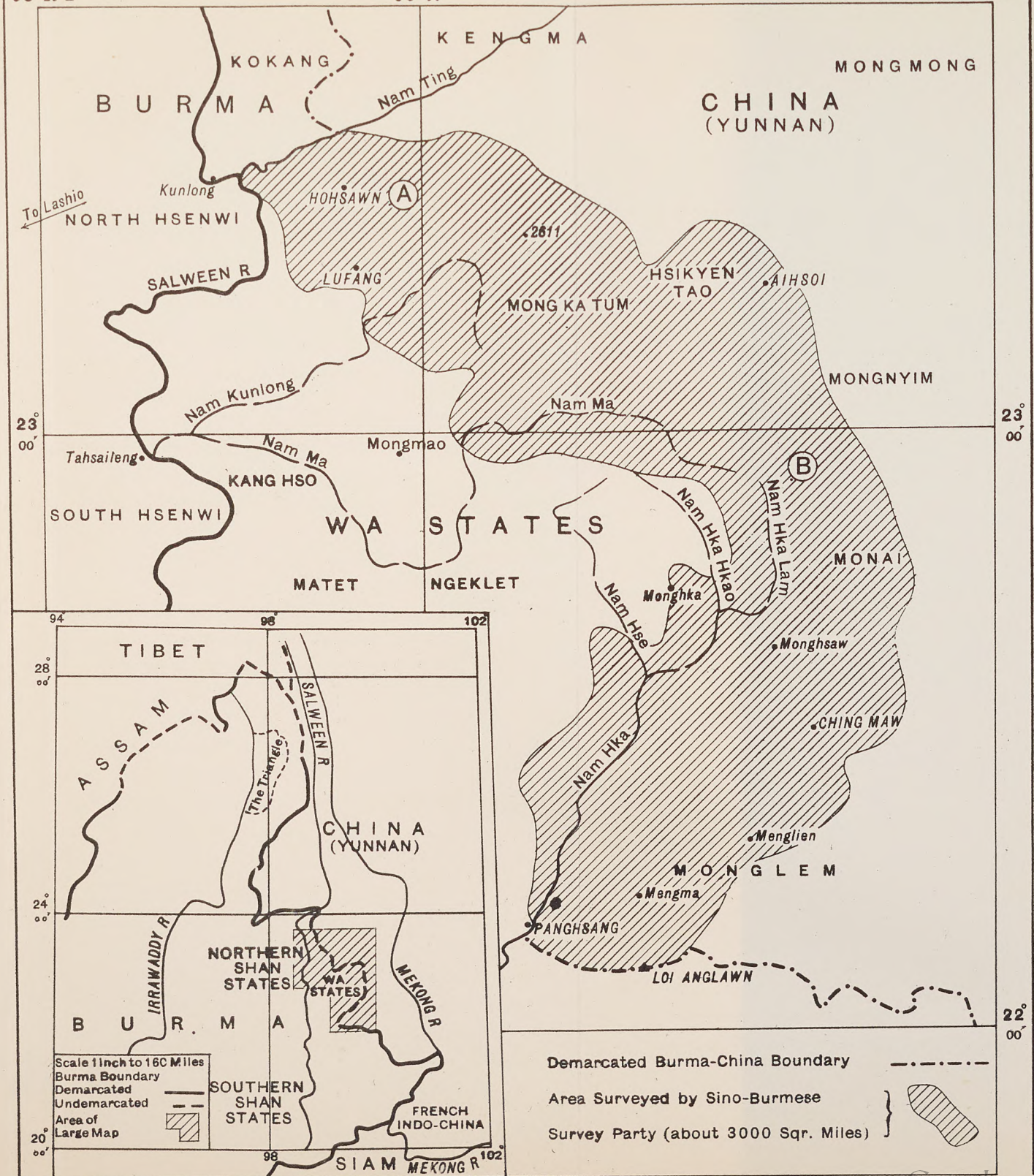
Outline map of WA STATES and adjacent country

Scale 1 Inch to 16 Miles

98° 20' E

99° 00'

100° E





with only one fire in which disaster to the single file column of men and transport, several miles long, was narrowly averted. The crossing of the Salween by ferry was accomplished in batches without incident and by the middle of May we were all back in our peace stations.

LEARNING TO FLY

By "A Dud"

A short article to assist officers who are considering learning to fly in England.

"Now, do you think you can go off on your own?" says the Instructor, getting out of his cockpit.

At last the moment has come for which you have been working, which, despite many setbacks and disappointments, has been steadily approaching and has alternately filled you with apprehension and pleasurable anticipation.

It has arrived, perhaps most unexpectedly, when all hope of going solo had temporarily gone. But the good flying instructor is an experienced psychologist, as you realize when your machine, relieved of half its load, leaves the ground quicker and much more cheerfully and, with no fears or feelings other than of happy self-confidence, you complete the same old circuit of the aerodrome, knowing somehow that it will be all right.

If you never fly again that moment, after making a safe, and usually excellent, landing at the end of your first flight, will have been worth everything you gave up to experience it. As you taxi back to receive the sincere congratulations of your instructor and other members of the club, feeling as though you were still "on air" you can truly say "alone I did it."

In England there are two main civil licenses, "A" and "B," issued by the Air Ministry and the Royal Aeronautical Club and recognized by the Fédération Aéronautique Internationale. The immediate objective for the aspiring aviator is the qualification for the "A" license. With this license you are considered a safe, useful pilot and can carry private passengers to any part of the world. Actually it is only the beginning of a flying career as the instruction includes no navigation or blind flying and you have never left the three-mile limit of the aerodrome. But you are quite ready to.

The qualifying tests for the "A" license are—

1. Three hours solo flight.
2. A forced landing test. This necessitates taking the machine up to 2,000 feet and gliding down with the engine shut off, to land within 150 yards of a selected point.

3. A level flying and landing test. This consists of making five figures of eight at a level height in a comparatively small compass and landing, with the engine if necessary, within 50 yards of a selected point.
4. An oral examination on air navigation rules, on land and water.
5. A medical test.

For tests 2 and 3 a sealed barograph is carried in the plane to record height and whether the engine has been turned on. This goes to the Air Ministry so that the tests must be accurately carried out. It is no use making up to your instructor, except as regards the distance at which you end from the mark in the landing part of the tests.

As it is still possible to put some machines into a spin, inadvertently or otherwise, you have to show your ability to get into and out of a spin prior to going solo for the first time.

As regards the medical test. This is a somewhat severe one, rightly so. But anyone who has led a normally healthy life and has good sight and hearing will be all right. (There is at least one legless aviator.) To take the test obtain a form from your club or the Air Ministry and get your local practitioner to fill it up. As the writer has not yet had an account for this, it appears that the Air Ministry pay the doctor. This test must be repeated annually, consequently it is advisable to be examined just before starting your instruction.

Finally, to maintain your license you have to fly three hours solo annually and send your certificate and log book up to the Air Ministry for renewal.

Well, we now know what we have to do and will set about doing it.

The first question for most of us is the cost. This depends so much on the aptitude of the pupil that a wide estimate is necessary, but thirty-five to fifty pounds will cover most cases if one learns at a subsidized school. There are exceptions both ways. One lady could not pass off solo after forty hours dual instruction. She bought her own machine and flew away in it and occasionally lands without breaking something.

The majority of private flying clubs are subsidized by receiving a grant from the Air Ministry for each license obtained as a result of their instruction. As the only effect of this subsidy, as

far as we are concerned, is that such clubs can afford to reduce their charges by one half, there is no need to enter into the other details of the contract between such clubs and Government. But one should look for a subsidized club for instruction.

The average cost of flying at a subsidized club is two pounds an hour dual and thirty to thirty-six shillings solo. The subscription to the club is negligible as you can pay for one month without entrance fee. The subscription varies from ten shillings to one guinea. Add to this the price of your helmet, goggles and ear-pieces and one or two books, totalling thirty shillings. Finally the cost of the license is one guinea to the R.A.C. and five shillings to the Air Ministry, plus the price of five small photographs of yourself. This totals, say, thirty shillings.

Summing up for a pupil who completes his instruction in fifteen hours—

	£.	s.	d.
Dual instruction, 12 hours	...	24	0 0
Solo flights, 3 hours	...	4	10 0
Accessories	...	1	10 0
Club subscription	...	1	0 0
Licenses and photographs	...	1	10 0
Total	...	32	10 0

Certain clubs advertise that they will teach a pupil to fly for £25. It is as well to look carefully at their contract, which will include a clause limiting the number of hours instruction which they give for this sum.

The next question is accommodation. Several clubs have accommodation on the aerodrome itself, either in hutments attached to the club house or, as in the case of Highpost—just North of Salisbury—in a specially built hotel. The inclusive charges for such accommodation vary from two to three guineas weekly. Whether it is advantageous to live on the aerodrome or not depends on the personal factor. But it is advisable to be within easy reach and on the telephone for the early part of the instruction, especially when doing “landings” so as to take advantage of good weather conditions should those be generally unfavourable.

Armed with this knowledge and having obtained a list of conveniently situated clubs from the Air Ministry or such papers as “Flight” the next and essential step is personal reconnaissance.

Less time is wasted in this than on any military scheme. If you do not like the look or manner of your instructor or the atmosphere of the club go elsewhere or you will waste your time and money. One other point in this connection. Clubs near London are crowded. This means that it is more difficult to fit in your times of flight and, near Heston for instance, there are usually several other machines in the air at a time when you do not want to be worried looking out for extra trouble.

It is generally accepted that during the early part of the instruction the pupil should fly regularly and for one to one and a half hours daily until he shows signs of getting stale. Hence a club which can do this for you is preferable. The writer having eventually got off the floor alone had to wait a week to repeat the experience and was sent home that evening with his tail between his legs, feeling he would never go solo again. He was just saved from oblivion by finding that a fellow pupil was in the same position.

To revert to the question of the length of time to allow. Although fifteen hours is a fair average it is very difficult to lay down hard and fast rules. There are several cases of pupils who have gone solo after six hours instruction. Some of our leading aviators took more than twenty hours dual. Temperament plays its part. And psychology plays a bigger part in flying than in most forms, almost it might be said in any other form, of worldly activity. Flying is so much a matter of the senses that if you have anything on your mind when learning it will impede progress considerably. Consequently, when you have decided to fly, put aside the question of cost and of time. If you start wondering how much more you can afford should progress be slow you will make it slower and you will spoil what should be a very enjoyable holiday. Paradoxically the rich young things with few cares and no financial ones learn the quickest.

There may be one further question before we start; is there any age limit? No, except that of 45 for piloting airships. The writer was 45 and by no means the oldest pupil in the country.

Well, now we are off. A satisfactory financial discussion with our parents and/or wife has been concluded; our club has been chosen after a trial flight—fifteen minutes for fifteen shillings or so—and our accommodation arranged. We then proceed to enjoy ourselves learning a little about a form of transport which

is still in its infancy and of the ultimate developments of which no man would dare foretell.

While carrying out your instruction it is emphasised, "don't let yourself be depressed if your progress is slower than you hoped." In the end the slow learner is often the best pilot. Disappointment has at one time or another been the lot of all pupils.

It is not proposed to give details of experiences during instruction. These are well told in a series of articles by Hilton Young in the *Sunday Pictorial* of 1936, and in a book entitled "England Have My Bones," by T. H. White. And you will have similar ones.

But the moment will arrive when you taxi back to the hangar to receive the final congratulations of those present on passing your tests. No budget estimate has been prepared for the adequate recognition of this occasion, it depends on so many factors, but it will be trivial in comparison with the occasion it celebrates.

But next morning you may wonder why you did it. You cannot afford your own machine. You may, therefore, well ask yourself, "What is the good of spending this money learning to fly?"

It is difficult to give a definite answer to this, but here are a few suggested ones:

1. You wanted to learn to fly.

2. Less than 11,000 civil "A" licenses have been issued in England with a population of 45,000,000.

3. This article will be read chiefly by Army Officers. To them the writer would say that even a small knowledge of flying should make it much easier for them to co-operate with the R.A.F. You will have met many airmen, civil and military, heard their "shop," perhaps gone up with some of them and been shown their point of view of the tasks given them in Army Co-operation and, by spending a fair number of hours in the air in an open plane, you become accustomed to this form of transport. Admittedly it is not necessary to know how to fly in order to work in with the R.A.F., but it helps. You get more of a fellow-feeling with the pilot and understand each other better. Air travel is developing with such rapidity and military air forces increasing to such an extent that we cannot afford to sit back and think that air work has little to do with us. We will all be actively concerned with

future developments, whether in direct co-operation or from the anti-aircraft point of view. The writer goes so far as to say that all cadets at Sandhurst and Woolwich should undergo some form of air training, including flying as observers.

4. And finally to learn to fly is a fascinating way of spending a holiday. If you hit on a good club, and they are mostly so, you will meet interesting people of all kinds. From the ex-airways pilot, who has pioneered an air service in the Arctic and made incredible forced landings in the desert or on the Nile and is about as communicative as a clam, to the retired Petty Officer, R.N.A.S., who has fallen off seaplanes through the carelessness of a pilot when he took off; has climbed about the wings of a machine in mid-air to repair an engine and whose little business has been successful enough to enable him to achieve his ambition to pilot a machine himself.

There is a great feeling of camaraderie amongst the flying folk, nationally and internationally, and it is fun to fly off to another club for a meal and swop depressions with another pupil.

Of course one wants to go on and, having qualified for the "A" license, one realizes that it is only the very beginning. But with machines becoming cheaper and safer yearly it is not beyond the dreams of most of us to be a private owner in the not-so-distant future.

This article does not deal with flying in India, of which the writer at present has no experience. There are clubs in most big centres. Their charges are somewhat higher than those of a subsidized club at Home, the average cost of taking the first license being about Rs. 600.

The Indian authorities do not accept the Home licenses. In India there are three licenses: "A" which necessitates five hours solo, "A-1" which requires 100 flying hours solo and "B" requiring 200 hours solo, including five hours night flying. At Home at present there are only the "A" and the "B" licenses, the latter necessitating 100 hours solo with a navigation test and blind flying.

A curious situation arises in that you can fly out to India on your "A" license with private passengers, but apparently on arrival in India you cannot leave the three-mile limit without their "A" license and you cannot take a private passenger beyond the

10-mile limit without their "B" license. If this is so the situation appears to call for some revision.

Anyone wishing to learn in India can obtain full information from "The Director of Civil Aviation in India, New Delhi/Simla."

To sum up:

To obtain the English "A" license should cost a maximum of £50; with any air sense much less.

You will find that the money and time will not be wasted.

In connection with the financial side, it might interest Indian Army officers to know that the Royal Artillery and Royal Engineers have formed flying clubs in England. By so doing they obtain special rates from an instructional club while subscriptions from members help those learning to fly.

Finally, learning to fly provides an interesting and enjoyable holiday out of the ordinary run of things, even though you may be, like the writer, slow in the uptake.

INDIANIZATION OF THE ARMY—A RETROSPECT

The year 1937 sees the Indianization of the Indian Army well under way and affords an opportunity to look back and view as a whole what has been achieved. It has hardly been possible hitherto to make this broad survey, as immediate and pressing problems, some of them of major importance, many of them questions of detail, have demanded constant attention. As a result the true aspect of the wood has been concealed by the trees. Now a period of comparative quiet has been reached; immediate problems have been solved, the scheme of Indianization within the limits of present policy is in process of being implemented; the problems of the next stage have not yet arisen.

The Indian Military Academy is now firmly established and is turning out annually some sixty cadets destined eventually for all arms and branches of the service. Nearly one hundred and fifty of these cadets have already been granted commissions and are now serving, some attached to British units for their first year of service, some undergoing post-graduate technical training, and others already serving as fully fledged troop and platoon commanders with their permanent units. Some have already put their military training to practical effect and have been called upon to lead their men in action on the North-West Frontier. The experiment has left the stage of theory and has become a practical one.

The Genesis of Indianization.—Without going as far back as Queen Victoria's famous declaration of 1858, we may place the origin of our present policy in a statement made by the Secretary of State for India on the 20th August 1917:

"The policy of His Majesty's Government is that of increasing the association of Indians in every branch of the administration and the gradual development of self-governing institutions with a view to the progressive realization of responsible government in India as an integral part of the British Empire."

Here is stated the policy and here also lies an implied promise to the peoples of India. It would, however, be misleading

if the extract were left as it stands, separated from its context. In the same statement, the Secretary of State continued:

"I would add that progress in this policy can only be achieved by successive stages. The British Government and the Government of India, on whom the responsibility lies for the welfare and advancement of the Indian peoples, must be judges of the time and measure of each advance, and they must be guided by the co-operation received from those upon whom new opportunities of service will thus be conferred, and by the extent to which it is found that confidence can be reposed in their sense of responsibility."

In the above two quotations can be found, not only the genesis of Indianization of the Army, but also the justification for regarding it in its early stages as an experiment.

First Steps.—Arrangements were made during the war to grant commissions in His Majesty's Land Forces as a special measure to a few selected Indians who were actually serving as Viceroy's Commissioned officers, and later to a few others who were admitted to, and qualified at, a special course of training at Indore. These arrangements were however merely temporary and after the war, recognising the necessity for a course of training as thorough and as comprehensive as that undergone by the British officer in the making, the Government of India decided to allocate vacancies at the Royal Military College, Sandhurst, to Indians. These boys on passing out were granted the same form of commission as was granted to the British cadet, were governed by the same regulations as regards pay, etc., and, after carrying out the same period of attachment to a British unit in India, were then available for appointment to a cavalry or infantry unit of the Indian Army.

As early as 1921 however it became apparent that these measures did not satisfy Indian demands as expressed in the Legislative Assembly, on the platform and in the press, and as a result Lord Rawlinson, then Commander-in-Chief in India, assembled a mixed military and civilian committee. This committee expressed the opinion that "responsibility for defence is the natural corollary of self-government" and recommended a policy of gradual but speedier Indianization of the defence forces as a means of satisfying public opinion and of reorganizing Indian

nationhood. Their recommendations went further and contained the proposal that an Indian military college should be started as soon as funds should be available, and that a course at this college should be considered as the equivalent of a course at the Royal Military College, Sandhurst.

At this early point in our retrospect it is desirable to look back to the second portion of the remarks of the Secretary of State made in 1917 and consider their implication in view of the recommendations mentioned briefly above. The Secretary of State was expressing the policy of the Imperial Government and visualised Indianization being carried out by stages, the progress from stage to stage being controlled to accord with the degree of success achieved up to date. It has always been the contention of the military authorities that, as they are responsible for advising the Government upon problems affecting the military safety and security of India, they must also be the responsible advisers of the Government as to the rate of progress of Indianization. They admit that it would always be possible to hasten Indianization by a stroke of the pen—they contend that it would be impossible to produce a wholly efficient service or army by the same process. For this reason the recommendations of the committee were not immediately adopted, although they were borne in mind and although they eventually made their mark on the military history of India.

It was not found possible to accept immediately the greatly increased rate of Indianization recommended by the committee but it was recognized that some reasonable method would have to be devised whereby the new Indian officers would be enabled to prove their efficiency at the earliest possible moment. It was therefore decided, while increasing the number of vacancies at Sandhurst to be allotted to Indian boys, to post them in future to certain selected units so as to enable them to prove their capacity as administrators, as trainers and as leaders of the units and men placed under their command. Eight units were selected for early Indianization in this manner, as being a number sufficiently large to enable results to be used as a basis of future policy, and as being sufficiently small to allow the Indianization of their junior officer cadres to be completed within a reasonable period of time. It is obvious that the completion of their senior officer cadres could not be unduly hastened and that the Indian company

commander, for example, would take at least as long to train as his British counterpart (approximately fifteen years). It was considered however that the retention of a few senior British officers with these eight units would not vitiate the results of the experiment.

It might have been thought that this change of policy would have proved acceptable to all grades of Indian opinion. The reverse was the case. Instead of the "eight-unit scheme" being accepted by Indian political opinion at its true worth as being an opportunity for proving, at the earliest practicable moment, the capacity of India to find its military leaders from among its own citizens, it was looked upon with hostility and described as an attempt to retard the progress of Indianization by segregating the new Indian officers and by refusing to allow them to mingle with their British comrades. In spite of the unpopularity of the scheme however the military authorities were determined that the experiment should proceed along the lines best suited to its evolution and the second stage in the progress towards Indianization of the army had been reached.

As regards the proposal to form an Indian military college it seemed clear that nothing short of the very best would meet requirements, and that much investigation, much constructive thinking and much spade work would be necessary before any institution in any way comparable to the Royal Military College could be formed in India.

Second Stage.—This second stage saw therefore an increase in the output of Indian officers from Sandhurst, these officers being used to fill the junior ranks of the eight selected Indianizing units, and it saw also the beginning of the long work of preparation which was to culminate later in the inauguration of the establishment now known as the Indian Military Academy, Dehra Dun. The basis of this work of preparation was laid by a Committee, representative of the most highly qualified military opinion and of all branches of Indian political life. The work of this committee entailed a close examination of the organization and working of similar institutions in many parts of the world, the hearing of many expert military and civilian witnesses, the consideration of the rival claims of many localities and culminated in a world-wide tour, undertaken by a portion of the committee, which enabled them to judge by personal observation the

practical working of a long range of military educational establishments. The result, not immediate and even somewhat indirect, was the Indian Military Academy.

Before the first stone could be laid, many important decisions had to be taken and the experiment of Indianization had not been sufficiently long in progress to enable a final judgment to be passed. It was clear, however, that the establishment of an Indian military college would be unjustified unless its output were considerably greater than even the increased number of Indian cadets commissioned annually from Sandhurst. It followed that the output from an Indian college would obviously fill the junior cadres of the eight selected units at a rate greater than that originally contemplated and would complete these units before they had had time to settle down and to prove themselves in peace and in war. It was further recognised that so far Indianization had been confined to cavalry and infantry units only, and that in this limited field no finality could be achieved. No scheme yet existed for the Indianization of the services and what was an even more serious omission, the Indianization of the other combatant arms, *i.e.*, artillery, engineers and signals had not been commenced. In the case of the artillery there was an added complication in that Indianization could not take the form of transforming existing units, but the new arm would have to be built up from the beginning.

Meanwhile Indian opinion was becoming increasingly insistent upon the necessity for increasing the rate of Indianization, culminating in the opinions expressed at the first Round Table Conference in 1930 and simultaneously with this demand it was agreed that the time had come to make a fresh step. It was therefore decided to extend the "eight-unit scheme" to a new scheme embracing the eventual Indianization of the equivalent of one division and one cavalry brigade, including all arms and services, and to establish an Indian military college in India whose function it would be to provide the large numbers of officers required.

Certain Implications of the above Decisions.—Up to this point, the Indian cadet from Sandhurst* had been given a commission exactly similar to that granted to his British confrère

*Now to be entitled King's Commissioned Indian officer to distinguish him from the officer emanating from the new military college.

—a commission in His Majesty's Land Forces, emanating directly from His Majesty the King. He was employed in the Indian Army in a unit organized on exactly similar lines to that of a unit not earmarked for Indianization and started his military career, not as a platoon commander, but in the somewhat more exalted post of Company Officer—second-in-command of his company and therefore one stage removed from the closest association with his men which it is possible for an officer to attain.

The form of commission to be granted to a cadet trained at an Indian military college had, obviously, to be altered. This was clear from the analogy of the other Dominions, each of which has its own military educational establishment and each of which grants its own form of Dominion commission in its own Dominion Land Forces, which commissions still emanate from His Majesty the King, but no longer directly. It appeared obvious that any restriction of the right of the Government of India to grant its own Dominion form of commission would be looked upon as an injustice and as an attempt to prevent the India of the future having full and complete control over its own officers. The grant of a Dominion form of commission in His Majesty's Indian Land Forces might introduce certain legal difficulties in regard to status and power of command, but there did not appear any reason why these difficulties should not be overcome in our comparative peacetime leisure as successfully as they had been overcome in the case of the other Dominions during the stress of the Great War. It was therefore decided that the officers gazetted from the new Indian military college* would be granted commissions in His Majesty's Indian Land Forces, issued in the name of His Majesty the King-Emperor and signed on His Majesty's behalf by the Governor-General. These officers may exercise power of command in relation to personnel of the British Army in India under the authority conferred upon H. E. the Commander-in-Chief by King's Regulations.

The question of the future organization of Indianized units appeared equally obvious and equally capable of solution on a simple analogy. It is a truism to say that no senior officer, no commander of any rank and no staff officer can afford to be without some knowledge of the habits, the weaknesses and the virtues

*Now to be described as Indian Commissioned Officers to distinguish them from the Indian officer trained at Sandhurst.

of the rank and file with whom he has to deal. This truism can be emphasised by stating that the more distant the appointments of these officers are from actual contact with troops, the more necessary it is that the personal knowledge of these officers should be founded upon close association. In the British Service this close association has always been effected by appointing the young officer as a platoon, or equivalent, commander—in the Indian service it had hitherto been impossible to expect the young officer to achieve this close association so early in his career with men of a different race and it had been found necessary to introduce a link between the British officer and the "other rank" in the shape of the Viceroy's commissioned officer. Now however that the officer and the man in Indianizing units were to be of the same race, it was considered that the necessity for the V.C.O. link no longer existed and that it was essential to give the new Indian commissioned officer the advantage of this close association with his men and of the early basic training in the junior ranks which the junior British service officer now enjoys. It was therefore decided that Indianizing units should be organized on the British model and that the Indian Commissioned officer should start his service as a platoon or equivalent commander in the closest possible association with the men under his command.

One of the strongest recommendations made by the Indian members of the various committees and conferences assembled in connection with Indianization was that the terms of service, rates of pay, etc., of Indian Commissioned officers should be based upon an Indian standard and should take into account the fact that these officers would be serving in their own country, unlike the British officer of the Indian Army who spent his life in a country other than that of his birth and whose pay was rightly fixed at a higher rate as compensation for his exile. The strength of this argument was appreciated and all questions relating to conditions of service of Indian commissioned officers have therefore been decided as far as possible on the principle that they should be the same as the conditions laid down for a British Service officer stationed in the United Kingdom.

A further point which had to be considered was that in the United Kingdom there are two military colleges—Woolwich and Sandhurst. The Indian Military Academy, Dehra Dun, could not in itself perform the functions of these two colleges and turn out

completely trained cadets for the technical arms as well as those for cavalry and infantry. As it was undesirable to commence a second college in India for the exclusive use of the technical arms, a series of post-graduate courses were decided upon which would enable the I.M.A. Cadet from the "Woolwich Wing" to finish his technical education after being commissioned and before being posted to his permanent unit. The arms affected are artillery, engineers and signals and the courses vary between four months in the case of artillery officers and two years and three months in the case of officers destined for the Corps of Indian Engineers.

To sum up, this next stage included the establishment of an Indian military college, designed to produce annually sufficient officers to fill the cadres of the equivalent of a division and a cavalry brigade, complete with ancillary services, organized on the model of their equivalent British units, and which would obviate the necessity of an expensive course in England before the Indian boy of the future could be accepted as an officer in the army. These boys, having been trained exclusively for the Indian Army and at the expense of Indian revenues, would be granted commissions in His Majesty's Indian Land Forces, and serve on conditions of pay, etc., generally analogous to those governing the British officer serving in the United Kingdom. These decisions were made in 1931, and the first officers from the Indian Military Academy, having completed their course of two-and-a-half years, were commissioned in December 1934. The third stage in the progress of Indianization had commenced.

Present Position.—The present position is that this third stage is in active progress. The combatant units are some in process of change from non-Indianized to Indianized establishments and some are being formed as completely new units. The ancillary services are engaged in a double process, on the one hand Indianizing certain of their existing units and simultaneously increasing the Indian element in their general cadres by a process of infiltration. All arms and services are represented, with the exception of the Tank Corps, whose armament and organization in India is still in the transition stage even as regards British units. Cavalry, artillery, engineers, signals and infantry receive their officers direct from the Indian Military Academy, the R.I.A.S.C. and the I.A.O.C. will eventually receive officers from the same source but only after a period to be spent by these officers with

fighting arms; the I.M.S. and the I.A.V.C. obtain their officers by direct entry and not from Dehra Dun. In addition one squadron of the Indian Air Force is in process of formation, officered by cadets trained at Cranwell, and the first flight has already moved to Peshawar, where it is carrying out advanced training and gaining experience in frontier work.

There is one aspect of Indianization which is viewed with universal regret—the necessity which the new policy imposes of eliminating eventually from Indianized units the old type of Viceroy's Commissioned Officer. These officers have been the backbone of the Indian Army of the past, and, as previously stated, have formed the link between the enlisted man and the officer of an alien race under whom he was called upon to serve. The possibility of promotion to Viceroy's commissioned rank was a very valuable inducement to hold out to N.C.O.s and men, and promotion to that rank and status was a highly valued reward for many years of meritorious service.

Compensation has, however, been given to the enlisted classes for their loss of chances of promotion to Viceroy's commissioned rank, in two ways; first by reserving Indian Army cadetships at the Indian Military Academy for serving soldiers equal to the number of cadetships to be filled by competitive entry, and secondly by introducing the rank of Warrant Officer on the British Service analogy. Although the enlisted man who fails to obtain a nomination to the I.M.A. will eventually no longer be able to hope for promotion to V.C.O. he will still be able to hope to be promoted Warrant Officer, Class I or II, a rank of much higher status than the existing appointments of regimental or company havildar-major, etc.

We, at present, are only at the beginning of this third stage. The ground has been prepared and the seed has been planted and much depends upon how it grows. Many difficulties can be foreseen as will always happen when a new organization is put to the test, difficulties which have not been foreseen may arise as is almost inevitable when theory is translated into practice. These difficulties will be overcome, but only if all concerned play their part. The army as a whole, and particularly the Sandhurst trained Indian officer, has the task of welcoming these new Indian officers, of ensuring that the atmosphere is congenial and in that atmosphere of bringing up the young entry in the way it should go.

The new Indian officers themselves have the task of continuing to fit themselves, day by day and year by year, for the military career they have adopted and of bearing in mind, especially in the initial stages, that knowledge comes from experience and that experience is sometimes painful. The people of India have the task of ensuring that the right type of young Indian boy is forthcoming in sufficient quantities to enable this great experiment to establish itself as an accepted and proved success.

ARMAMENT AND ORGANIZATION OF THE ARMY IN BURMA

BY MAJOR T. R. HURST, 7TH GURKHA RIFLES

INTRODUCTION

The Burma Defence Force consists of the army in Burma and the Burma Frontier Force. The former includes two British battalions, four battalions of Burma Rifles, an Indian mountain battery, a company of Madras Sappers and Miners, certain regular ancillary services, and the Burma Auxiliary and Territorial Forces. A fifth battalion of Burma Rifles will be raised by 1940. The latter includes six frontier and one reserve battalions of Burma Military Police.

The Governor of Burma is the supreme head of both the Army in Burma and of the Frontier Force. Subject to his control executive and administrative responsibility for the Army is vested in the General Officer Commanding, while the Frontier Force is under the immediate command of an Inspector-General directly responsible to the Governor and is a civil force entirely independent of the Army.

In an emergency requiring extensive operations beyond the powers of the Frontier Force, the latter would probably be placed under the command of the General Officer Commanding, who is the sole professional adviser of the Governor on military matters, using the latter term in its widest sense.

Burma will in future pay for British troops in the same way that India has done hitherto. As regards units of the Indian Army, Burma will pay similar charges so long as they continue to serve in that country.

The role, probable tasks and theatre of employment of the Burma Defence Force were considered in detail in this journal in January of this year. It is intended in this article to consider the armament, organization and methods of training best suited to that force.

It has been asked:

(a) Should the Burma Defence Force in general and the Burma Rifles in particular stick to their present armament of Lewis guns *and* Vickers guns or should a policy be adopted of replacing the Lewis gun by the Vickers-Berthier, as is being done

in the Indian Army, or by the Bren gun which has been adopted in the British Army at Home?

(b) Can the new light machine-gun (V.B. gun or Bren gun) perform all the roles it would be called upon to perform for the Burma Defence Force if the heavy Vickers gun was completely eliminated?

(c) Should the Indian Mountain Battery now in Burma be retained?

(d) Is anything going to be done about signal equipment and "Signals" for the Army in Burma?

(e) Where will instructors for the Burma Defence Force be trained? *i.e.*, at army schools in India or will Burma have its own schools of instruction?

(f) What will be the best location of the Burma District Headquarters? *i.e.* in Maymyo as at present, or is a move to Rangoon indicated and necessary in the interests of efficiency?

These are all problems which present themselves at this juncture. The writer will examine each of them in turn and set out his personal views and suggested solution.

As no policy demanding a vast expenditure and increased Army budget is likely to prove acceptable, the writer's proposals are limited to those which, it is thought, can be carried out on a "no-cost" basis. It is emphasised that the writer lays no claim to set out the official view, or probable future official policy.

Rearmament of the Infantry in Burma

The war showed that the Lewis gun was unreliable and too heavy to be carried far by hand. Experimental designs for new light automatics were started soon after the war. India, as is well known, has decided to manufacture the Vickers-Berthier while the War Office have adopted the Bren light machine-gun. A short study of their characteristics proves that infantry equipped with either of these weapons will suffer little loss of mobility in action. It is to be remembered that both at Home and in India these light machine-guns are replacing the Lewis gun and not the heavy Vickers machine-gun, which is being retained by both armies.

It is proposed first to examine the question of the retention of the Vickers machine-gun by Burma. Now, in eastern climates, it is impossible, without extra men, to man-handle the Vickers more than a few hundred yards. The only advantage which the Vickers has over the easily carried Bren or Vickers-Berthier is a greater capacity for sustaining rapid fire for long periods. But an enormous amount of pack transport is required for the carriage of the

heavy Vickers gun and its ammunition. In short, it is not a weapon suitable for highly mobile operations in undeveloped difficult country.

Should the Army portion of Burma's Defence Force be called upon to reinforce the Frontier battalions of the B.M.P., the Vickers gun will be of little use in the terrain in which the troops will be required to fight. The armament or tactics of the possible enemy do not call for the production of sustained Vickers gun fire and the difficulty of transporting the guns and sufficient ammunition for them is almost insuperable. Offensive action is the key to success. Then why impede the mobility of the whole force by sticking to unsuitable weapons? The Vickers gun has a direct offensive value only when installed in a tank. The indirect value it has in providing fire support can, in mobile operations, owing to the limiting factor of ammunition supply, be equally well provided by the light machine-gun.

On the frontiers of Burma, there is little necessity for troops to be strong in defence—they will seldom, if ever, be attacked in position. Even if they were attacked, the Bren gun can fire either by direct shooting or on fixed lines for as long as ammunition is likely to be available, or the enemy is likely to press the attack.

Officers who took part in the Wa operations of 1935-36 and the Sino-Burmese Frontier Commission of 1936 state emphatically that machine-guns and artillery impede the columns and their inclusion is of doubtful value in such difficult mountainous and jungle terrain. Some alternative would, therefore, appear to be essential to efficiency on the Frontier.

The second duty of the Army in Burma will be internal security. Vickers guns are entirely unsuitable for normal internal security duties in urban areas against mobs without firearms, where sustained fire is always to be avoided. As regards action in the country in the event of rebellion or against dacoits, Burma has been described at a continuous military obstacle. In the past history of Burma, operations have invariably tended to degenerate into a pursuit of the most elusive of armed rebel or dacoit bands working in country ideal for their own tactics. The outstanding lesson of the Burma Rebellion, 1930-32, was that it is imperative that troops be highly mobile and able to move across any country with little or no transport. The enemy were poorly armed and never stood to fight in any numbers. They more often fled on sight of the

troops. They never attacked the troops in position so defensive fire was not necessary.

There is no reason to suppose that in the future operations will be very different. The Bren gun or V.B. gun will provide all the S.A. fire that is required and troops will have greatly increased mobility for offensive operations if not impeded with heavy Vickers machine-guns and obsolete Lewis guns.

The adoption by Burma of one gun to perform the dual role of the Lewis and Vickers guns has the additional advantages of—

- (a) Simplicity of training in peace and war.
- (b) Ease of ordnance provision, especially as regards supply of spare parts.
- (c) The possibility of eliminating the Indian platoons of British battalions in Burma. British soldiers already look after their Lewis gun mules, so that there is no reason why they should not look after their light machine-gun and mortar mules.
- (d) The fact that Lewis guns at least will become more difficult to obtain as Great War stocks die out and manufacture ceases.

To summarise so far, no reason is seen why Burma should tie herself to Lewis guns obsolete since 1922 and to heavy Vickers guns which are ill-suited to local conditions. The heavy gun can be entirely eliminated and its role and the role of the Lewis gun performed with greater efficiency by one light machine-gun, *i.e.*, either the Bren gun or the V.B. gun.

If this conclusion is accepted, it remains for decision whether the Burma Defence Force should adopt the Bren gun or the V.B. gun.

Considerations affecting the decision are:

(a) The primary consideration would be the answer to the question "Which of the guns is the more efficient?" Unfortunately, tests in themselves are not sufficient, minor alterations in design are still being carried out, and neither of the guns has been sufficiently long under trial or in service for anyone to give a conclusive and decisive answer to this question.

(b) The next consideration is the question of availability for purchase. The V.B. gun is now in production in India, but the output for the next few years is not known to the author. On the other hand the Bren gun is in full blast production at Home, but

none are likely to be available for Burma's indigenous forces until Home rearmament is completed. It is impossible to say at what date this will be, but the availability of funds, and the speeding up of all rearmament policy at Home is a cogent factor. The Home requirements of light automatics are admittedly greater than the Indian requirements, but the resources of Home arsenals are very much greater than the resources of Indian arsenals. Burma's requirements would be a mere drop in the ocean where the output of Bren guns from Home arsenals is concerned.

(c) If the Vickers-Berthier were available in Indian arsenals and the Bren gun in Home arsenals, the factors of distances to Burma and time for guns to arrive undoubtedly favour reliance on India, though air communication developments have reduced the time lag of supply from Home.

(d) In view of the possibilities of mobilization at Home and war in Europe, can or should Burma rely on getting Bren guns from Home? It may be said that during a war in Europe India could go on producing V.B. guns. But against this, in case of a serious conflict on or beyond the Indian Frontier, can or should Burma rely on getting V.B. guns from Indian arsenals? The writer doubts India's ability to provide V.B. guns for Burma's Defence Force and is inclined to favour reliance on Home for Bren guns.

(e) In emergency, if troops from India are ever sent as reinforcements to Burma, they will come armed with the Vickers-Berthier. It would, therefore, appear advisable, from the point of view of supply, for the Burma Defence Force to have the same light automatic in service. On the other hand, if troops from Burma are ever sent overseas, *e.g.*, to Singapore or Malaya, they will be serving in a force whose units will be using Bren guns. The supply of Bren guns will be simple, whereas that of the Vickers-Berthier might be very difficult for units of the Burma Defence Force.

These factors balance out and there is nothing in it either way.

(f) As far as the British infantry battalions in Burma are concerned, the rearmament with the Bren gun will, it is thought, be more than *welcomed by the War Office*.

The Cardwell system will be helped if the British infantry battalions, now in Burma, can be relieved by rifle battalions from

Home, whose men will be trained in the use of the Bren gun and not in the use of the Vickers-Berthier or the heavy Vickers. This is a further consideration in favour of Burma adopting the Bren rather than the Vickers-Berthier gun. Balancing all the above considerations, therefore, the writer considers the rearming of all troops in Burma, including the Frontier Force, with the Bren gun to be desirable.

Mortars versus Artillery in Burma

In the Burma Rebellion of 1930-32 no use whatever was made of the mountain battery then in Burma. For the Wa operations of 1935-36 one detached gun formed part of the punitive column. It was only fired in anger once, although it did give demonstrations which had a pacifying effect on the tribesmen. Its inclusion meant a constant strain on supply resources and decreased the mobility of the column especially when the River Salween had to be crossed. Once again officers reported that a few bombs from a mortar would have been ideal for dealing with enemy behind stockades.

The mountain battery of four howitzers has an establishment of four British officers, 250 Indian ranks and 150 mules and ponies, and the writer can see no reason why its services should not be dispensed with. It is unnecessary to be able to fire a 20-lb. shell 6,000 yards when a man firing a mortar will be in no danger at 1,000 yards and his 10-lb. bomb will do all that is required. The need for mobility has already been stressed. Think of the rations that must be taken on column for the battery personnel and animals and remember that all four howitzers cannot be used separately on detachment owing to lack of technical equipment and unsuitability of organization.

If battalions had two mortar detachments, each self-contained with 64 bombs and carried on five Chinese mules, they would have all the fire support of that nature required. A further supply of bombs could be carried in second line transport. The writer considers, therefore, that the elimination of the Indian Mountain Battery and the substitution of mortars will increase efficiency. It will release funds for other armament, will ease the strain on Ordnance and Supply Services, and, finally, will be welcomed by public opinion since it will be a step towards Burma becoming capable of providing all units for her own self-defence.

Signals and Signal Equipment

Efficient means of inter-communication are essential to the success of military operations. In undeveloped countries, columns working on wide frontages cannot succeed unless they have information of the movements of the enemy, and of friendly columns.

The fact that there are no "Signals" in Burma for Brigade or Force Headquarters and that there is not a single wireless set in the Regular Forces speaks volumes. It is a poor country for visibility. How then can inter-communication be maintained without wireless? We had to call on the B.M.P. and Divisional Signals sent especially from India to provide wireless communication in the Rebellion, for the Wa operations, and for the escort for the recent Sino-Burmese Frontier Commission.

British and Burma Rifles battalions are equipped with six field telephones and six miles of cable. A telephone weighs 10 lbs. and two or three pack mules are required to carry the telephone equipment of a battalion. The equipment is cumbrous and heavy. Its use spells immobility, defensive action and position warfare. Of what use is it in offensive mobile operations? For Burma, the writer would scrap the lot and rely on mobile wireless and R.-T., and within the unit only add visual equipment. Less men will be required in war to operate W.-T. sets than to maintain telephonic communication within the battalion, and communication outside the battalion (*e.g.* with Force Headquarters) will for the first time become possible. Wireless telegraphic communication is not open to the same objections, of lack of secrecy and danger of jamming, in Burma as it is in European warfare.

F.S.R., 1935, states: "Within the battalion where wireless or R.-T. communication is employed by the unit, the sets are maintained, and in some units are operated, by signal personnel." The Nigeria Regiment and the Gold Coast Regiment of the R.W.A.F.F. and the King's African Rifles all have their Signal Sections.

The writer advocates the immediate raising of "Force Signals, Burma," whose equipment should be up-to-date mobile W.-T. and R.-T. sets; the sets to be distributed to units (suggesting as the first stage two sets per battalion) and to be carried on regimental mules. The sets should be operated and maintained by personnel of "Force Signals" attached to battalions and relieved in rotation by men from the Signal Company Headquarters, which would be in the nature of a signal training centre.

Force Signals could be located in vacant barracks at Meiktila or combined with the existing B.M.P. Signal Training Centre at Pyawbwe, 26 miles from Meiktila. Some degree of amalgamation

of these two centres is obviously desirable in the interests of economy and efficiency. As regards the personnel to be enlisted to form "Force Signals," there are many Anglo-Burmans and Anglo-Indians in Burma. They are intensely loyal and always anxious for Government service in any form. They rendered distinguished service overseas in such units as the Rangoon Volunteer Battery during the Great War. Sufficient men of good class and up to the necessary physical standard would, it is thought, be certain to come forward for enlistment, especially in view of the fact that unemployment is being severely felt amongst Anglo-Burmans and Anglo-Indians in Burma to-day. From all of these we could pick and choose.

The men would start off with the most important qualifications of being educated and, as a general rule, mechanically-minded. They know English and Burmese and would understand the country and the officers and men with whom they would have to deal.

Financially it is admitted that the proposal to raise Force Signals is open to objection, but it is pointed out that the cost need not be great, because:

(a) The number of signallers within the battalion can be reduced to meet part of the annual cost of the Force Signals. It is suggested that it would be advantageous to sacrifice 25 per cent or more of the signallers now in battalions in order to get "Signals" organised on the above lines.

(b) Several regimental signallers become spare when telephones are eliminated and the cost of W.-T. sets would be partly met by the elimination of the telephone signal equipment, and no extra transport would be required.

Outline of proposed war organization of a battalion of Burma Rifles based on the foregoing proposals

Approximate war establishment, 11 officers and 720 men.

Battalion Headquarters

Headquarters Company—

No. 1 Platoon:

Regimental signallers (men of "Force Signals" attached with at least two mobile sets W.-T.).

Intelligence Section.

No. 2 Platoon:

Personnel for four Bren guns for use in heavy role.

No. 3 Platoon:

Mortar Platoon (Two 3"). Two self-contained detachments.

No. 4 Platoon:

Administrative Personnel.

Each platoon to include men to look after its own mules.

Four Rifle Companies

Each company consisting of headquarters and four platoons. Each platoon to consist of headquarters and four sections, one of which sections is armed with the Bren gun. Platoons to provide men to look after their own mules.

Notes—

- (a) The battalion would thus have 16 Bren guns in companies, four Bren guns for use in heavy role, and two mortars.
- (b) In peace each battalion to have a training company on similar lines to Gurkha Rifles. Each battalion to have an authorised strength of 200 reservists.

It is essential in the interests of efficiency to have continuity in the Quartermaster's department. This it is proposed to effect by having a British W. O., Class I, on the permanent establishment of each battalion. One seconded Captain to perform the duties of Adjutant and Quartermaster of the battalion and have as his staff this British W.O., the Q.M. Jemadar, the Jemadar-Adjutant and the Battalion Havildar-Major.

Proposed Regimental Transport

Load.	No. of mules..
16 Bren guns in Companies. (A mule will carry a gun, plus approximately 1,200 rounds S.A.A.)	16
Four Bren guns with Headquarters Company ...	4
Two mortars	2
64 bombs for each mortar at 10 lbs. each ...	8
W.-T. sets and signal lamps	6
Total mules ...	<hr/> 36 <hr/>

Notes—

- (a) No extra mules are required as the present establishment of mules is 36 in a Burma Rifles battalion.
- (b) Signalling equipment was previously carried by six first-line R.I.A.S.C. mules attached to the unit on mobilization. This would be unsatisfactory for W.-T. owing to the training necessary in peace for men and mules. All telephone equipment has been eliminated, thus saving mules.
- (c) Tools, water, and a further supply of ammunition and mortar bombs remain as at present to be carried on attached first-line non-regimental mules (*i.e.*, Burma Army Service Corps).

*Schools of Instruction**Weapon Training School*

A school will be essential for training battalion instructors in the Bren gun, mortar and rifle.

Even if there was a school of instruction for the new weapons in India, and students from Burma were acceptable on a "payment basis," they would derive little advantage from attending, because of the language difficulty. The men cannot speak or read Urdu. N.C.O.s will, therefore, derive no benefit if they attend the Urdu-speaking wing of a school in India. Their incomplete knowledge of English and their low intelligence compared with British N.C.O.s will make it impractical for them to attend the British wing. If they did attend, they would retard the instruction of British students.

On account of the language difficulty, and the fact that India is not yet equipped with the Bren gun or mortar, the writer is forced to the conclusion that Burma must, after Separation, have its own Weapon Training School.

There would be no alternative at first but to rely on Home for instructors in the Bren gun and mortar. These might, with advantage, be found from the home battalion of British units in Burma. The British wing of the new school should present no difficulty initially.

Three separate courses would appear necessary at the start for Bren gun, rifle and mortar. Students attending each course to be in proportion to requirements, remembering that existing Burma Rifles battalions are up to normal strength in rifle instructors. Rifle and Bren gun courses to be combined into one course as soon as abnormal requirements are completed.

Location and Financial Considerations

The school could be accommodated, with little expense, in the Mountain Battery barracks to be vacated in Maymyo, or in serviceable barracks lying empty at Meiktila which is centrally situated. The cost of transporting students to and from the school would thus be reduced to a minimum. Students from the Burma Military Police should attend, that force sharing the cost on a *per capita* basis.

Owing to the saving of the cost of transporting students to and from India and the avoidance of payment on "a *per capita* basis" for students' attendance at Indian schools, it is thought that

the eventual extra financial effect of the proposed new school in Burma would not be great. It would certainly mean greater efficiency.

Other Schools of Instruction

These cannot be discussed with much advantage, as so much will depend on the future Lingua Franca decision, particularly as regards the Educational School. It may, however, be remarked—

- (a) that students from British battalions in Burma could attend schools in India;
- (b) that the proposal to have a Signal Training Centre at the new Force Signal Company Headquarters eliminates the necessity of sending Burman students to Signal Schools in India;
- (c) that there does not seem to be any alternative but to send students from the new Burma Sappers and Miners Company to courses in India.

Headquarters of the Burma Defence Force

The writer suggests that the Army in Burma requires a big change in the location of its Headquarters and formations, and some minor changes in their organization.

At present the Headquarters of the Rangoon Brigade Area is at Mingaladon, is immobile and not a war formation. And the same is true of District Headquarters at Maymyo. It is suggested that Brigade Headquarters should be organized as a mobile war formation and located at Maymyo, while the Headquarters of the Burma Defence Force should be moved to Rangoon and Mingaladon.

The location of the Headquarters of the Defence Force in Rangoon would have the following advantages:

- (a) Closer liaison with civil departments, *e.g.*, between the G.O.C. and the Governor and between the Military Headquarters and the Government.
- (b) Closer liaison with the I.-G., Frontier Force, and I.-G., Police, and with civil intelligence resources.
- (c) Closeness to the Chief Ordnance Officer and his arsenal, and to the chief source of civil manufacturers and contractors.
- (d) If Force Headquarters were in Rangoon it would be in closer touch with the first Army reserve, namely, the Burma Auxiliary Force (present A.F.I.) of which 80 per cent is in the Rangoon Brigade Area.

- (e) Embarkation Staff, Rangoon, could become an integral part of Force Headquarters.
- (f) Mingaladon air port is one of the important stepping stones on the R.A.F. route for Empire air reinforcement. It is considered important that Force Headquarters should be on that route rather than 500 miles off it.

As regards the financial aspect, there are now some blocks in Sale Barracks, Rangoon, lying idle. These could be utilised to accommodate most of the Burma Defence Force Headquarters, both for office and living accommodation. In addition there would be at Mingaladon the accommodation vacated by the Headquarters of the Rangoon Brigade Area.

Maymyo could adequately accommodate a Brigade Headquarters without extra cost, so that the only additional expenditure would be the hiring of bungalows in Rangoon for officers of the Defence Force Headquarters.

Such then are the writer's ideas as regards the arming and organisation of the future Defence Forces in Burma. That much detailed investigation remains to be done goes without saying, and the author does not claim that his views are in any way conclusive or official.

THE HANOVERIAN REGIMENTS IN INDIA, 1782 TO 1792

BY DECURION

By the end of the year 1777, the necessity for extra European soldiers to reinforce their army for the wars in Southern India had become so imperative that the East India Company were compelled to take immediate measures to obtain them. This they did by increasing the numbers of their own European regiments to six in each Presidency, adding another company to each of the European artillery battalions, and applying to the Home Government for the loan of Royal infantry regiments.

Though themselves hard pressed, the Home Government responded by despatching the newly-raised 73rd Highland Regiment which arrived at Madras on the 20th of January 1780. Early in the next year this unit was followed by the 2/42nd Highland Regiment, the 78th Highland Regiment, and the 98th and 100th English Regiments.

Long before the despatch of the last contingent, the Company were warned that all they could now expect for the next few years was one regiment of Dragoons and two of Infantry, both not yet raised, and that, if necessary, they should follow the example of the Home Government and hire Swiss or German regiments. The latter not being immediately available, the Company turned to the King of England in his capacity as Elector of Hanover and obtained the promise of an Hanoverian regiment of two battalions to be raised for service in India for a specified period.

Though the agreement *in extenso* was not signed until the 7th of September 1781, recruiting was commenced on the 1st of June as soon as the main heads had been agreed upon.

The main features of the agreement were as follows:

"A regiment of 2,000 men shall be raised and added to the Hanoverian Army at the sole charges of the East India Company of London.

This regiment shall be lent to the East India Company on its formation and shall remain in their service for a full term of seven years after its arrival in the East Indies. In the event of the Company desiring to retain the services of the regiment for any longer period, due notice must be given at least two years before the expiration of the specified seven years.

It shall be placed on exactly the same terms as His Majesty's British troops in India with regard to rank, pay, duty and all else, nothing excepted in any respect.

It shall consist of two Battalions each of ten Companies, each Company having a complement of 100 all ranks. Each Battalion shall comprise one Grenadier, one Light Infantry Company, and eight Fuzilier Companies. (A fuzil was simply a musket, shorter and lighter than the ordinary weapon. It weighed 12 pounds as against 14 and was six inches shorter.)

The staff of each Battalion shall consist of—

1 Lieutenant-Colonel	1 Major
1 Captain-Lieutenant	1 Adjutant-Major as Lieutenant
1 Adjutant as Ensign	1 Judge as Lieutenant
1 Chaplain	1 Surgeon
2 Cadets	5 Surgeons Mate as Serjeants
1 Drum-Major as Serjeant	4 Musicians as Lance-Corporals
1 Armourer	1 Provost as Private

Each company shall consist of—

1 Captain	2 Lieutenants
1 Ensign	3 Serjeants
1 Clerk as Corporal	4 Corporals
2 Drummers	12 Lance-Corporals
	74 Privates

Total	...	100
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It being customary with German troops to have two three or six-pounder cannon attached to each Battalion, these shall be provided in India and remain attached to each Battalion during its term of service independent of the Company's Corps of Artillery. For their service shall be provided for each Battalion: 1 Serjeant, 2 Corporals, 12 Cannoneers.

The pay of all the officers, non-commissioned officers and drummers of the First Battalion and of the men for the artillery of the whole regiment shall commence from the 1st of July 1781. All others as they are raised or transferred.

The standard of the private men shall be the same as for His Majesty's Marching Regiments, viz., men of good physical condition, aged 16 to 40 years, and not less than 5' 6½" in height.

All expenses of arms, uniform, accoutrements, equipment, clothing, drums and colours, etc., to be borne by the Company.

The Cadets of each Battalion will receive the same pay and allowances as those sent out by the Company.

Two women (but no children) will be allowed per Company.

Whereas the Regiment shall from the day of its arrival in the East Indies be on exactly the same footing as those of His Majesty's British troops in India, all papers relative thereto and stating the extra allowances and batta are to be annexed to these Articles.

Officers invalidated by reason of wound or sickness shall have free passage home and one year's pay as gratification. If invalids for life they shall be allowed half pay for life as under the provisions of Lord Clive's Fund.

Invalids of private men shall be placed on the Invalid Establishment of the East India Company's Army during the term of the Capitulation (Agreement), at the expiry of which they shall be granted free passages to Hanover where they will receive four months' pay as gratification and if invalids for life a pension of fourpence three farthings per day paid six-monthly in their own country."

As there are certain ranks mentioned in the Hanoverian list which did not exist in the British or Company's services we will explain their position.

The Captain-Lieutenant actually commanded the Company for which the Colonel drew pay in addition to that of his command. His permanent rank was that of Lieutenant but he drew a Captain's pay and had temporary rank while so acting. The junior Adjutant was the Quartermaster, and the Judge dealt with military offenders. Cadets were the same as volunteers in British regiments, *i.e.*, young aspirants for commissioned vacancies due to death on foreign service or in action, both of which could be given without purchase by Generals Commanding-in-Chief. They were borne on the rolls and paid as supernumerary privates. Those of the Company were on a different footing, being all young men selected at home and sent out to India for further training before being commissioned.

Musicians in British regiments were the private concern of the officers. The corporal-clerk corresponded to the Pay Serjeant of British and Company units, while no provision seems to have existed for Lance-Corporals either in rank or pay.

The establishment of a Company's European regiment was
Staff of the Regiment (single battalion)—

1 Lieutenant-Colonel	1 Major
1 Adjutant as Ensign	1 Quartermaster as Lieutenant
1 Surgeon as Ensign	1 Surgeons Mate as Ensign
1 Serjeant-Major	1 Quartermaster-Serjeant
1 Drum-Major	1 Fife-Major
1 Drill Serjeant	1 Drill Corporal

Chaplains were not allotted to regiments of the British or Company's service, but to stations. Probably the Hanoverians obtained their own regimental Chaplains on the grounds that they were Lutherans and that they spoke a different language.

Serjeant-Majors, Quartermaster-Serjeants, Drum and Fife-Majors were all substantive Serjeants only, each receiving staff pay for his appointment.

The regiment consisted of eight companies each of 80 all ranks, *viz.*, two grenadier and six battalion companies.

The English pay of each rank and the allowance made by the Company to bring the total of pay up to the standard of the local European regiments was as under. The allowances are separately dealt with.

	English pay per day.	Company's addition per month.
	Sh. d.	Rs. a. p.
Lieut-Colonel	.. 13 0	33 6 2
Major	.. 11 6	*
Captain	.. 7 6	*
Lieutenant	.. 3 6	3 3 3
Ensign	.. 3 0	4 2 4
Volunteer	.. 0 6	13 6 10
Adjutant	.. 3 0	11 6 11
Quartermaster	.. 3 6	3 3 3
Surgeon	.. 3 0	72 4 3
Sergeon's Mate	.. 3 0	17 9 9
Serjeant	.. 1 0	2 13 8
Corporal	.. 0 8	2 3 9
Drummer	.. 0 8	2 3 9
Private	.. 0 6	1 13 6

* No addition, being higher than Company rate.

The exchange was calculated at two shillings and a penny per rupee. All officers were entitled to free quarters or compensation in lieu, according to rank, besides batta at rates varying with rank and where employed. Taking a captain, for example, we find that when in Cantonments he drew Rs. 2 per day (half batta), if on the march or on service in British limits, Rs. 4 per day (full batta) and when beyond the recognised frontier, whether on service or not, Rs. 8 per day (double full batta).

Other ranks do not appear in the rates for batta, being given free rations in lieu. But in half batta stations they drew full rations only on alternate days, and after a campaign were given an allowance in money called field batta. Generals, colonels and a proportion of lieutenant-colonels received a considerable addition by way of off-reckonings which was the balance of the money deducted from the pay of other ranks after their clothing had been paid for. These deductions were for European soldiers:

Serjeants (staff or otherwise)	...	Rs. 48	0	0	per annum.
Corporals and drummers	...	„ 36	0	0	„ „
Privates	...	„ 24	0	0	„ „

In order to show what were the profits from these iniquitous deductions, we give the value of the clothing supplied. This consisted of only a hat and coat and as both were supplied from the Company's civil side to the contractor for making up, that side must also have made its profit. Boots, breeches, gaiters and undergarments had to be found by the soldiers themselves from the balance of their pay which in the case of a private European was Rs. 8 per month.

Contract rates for soldiers' clothing including cost of material—Europeans—Infantry:

		Rs.	a.	p.			Rs.	a.	p.
Serjeant-Major	...	21	3	11	Serjeant	...	12	2	1
Drum-Major	...	18	5	5	Fife-Major	...	18	5	5
Corporal	...	7	6	7	Drummer	...	6	13	4
Private	...	6	13	1					

Generals received a full share amounting to Rs. 10,800 of this off-reckoning. The balance was divided between colonels and lieutenant-colonels, some of whom obtained full shares, while others obtained half shares amounting to Rs. 6,000. Generals and colonels commanding stations also received sums amounting to nearly as much from bazaar profits.

The regimental staff pay per month of the Infantry was as under—

Adjutant	...	...	...	Rs. 137
Serjeant-Major	...	...	...	„ 20
Pay Serjeant	...	...	...	„ 7
Drum-Major	...	...	...	„ 5
Drill Corporal	...	...	...	„ 5
Quartermaster	...	...	...	„ 117
Q. M. Serjeant	...	...	...	„ 14
Drill Serjeant	...	...	...	„ 5
Fife-Major	...	...	...	„ 5
European woman	...	...	...	„ 8

By reason of the allowance European women were classified as camp followers subject to military law. For instance, in September 1825, Hannah Fitchit, of the 14th Foot, was found guilty by a General Court-Martial of the murder of Alexander Laird of the same regiment with a bayonet and sentenced to two years, commuted by the Commander-in-Chief to three months' imprisonment. Another case was that of Ann Sutherland, of the 13th Light Infantry, who was acquitted of an attempt to poison her husband.

To continue with the military history of the Hanoverian regiments: The original intention of a double battalion regiment was abandoned in favour of two single battalion regiments which, being integral parts of the Hanoverian Army, were numbered the 15th and 16th (becoming later the 14th and 15th). Both were uniformed in red coats with green facings, red breeches and black gaiters and a three-cornered black hat with a green pom-pom on the turn-up in front. The 15th had green shoulder-straps, the 16th red, as distinguishing marks.

All the officers came from, and were borne on the strength of, the Hanoverian Army with the exception of Major Wangenheim, a German, already serving with the British 9th Light Dragoons, who was appointed to command the 16th. The 15th was commanded by Lieut.-Colonel Reinbold, and its formation was so far advanced by November 1781 that a half battalion was sent to England in compliance with an urgent request from the Company that it should accompany the last contingent of European troops that the Company were to receive for some years.

This contingent left England in sixteen transports on the 11th of February 1782 and arrived off Madras in September and October of the same year, and, on the 5th of June, another party of the 15th, numbering about 250 all ranks, left England in the transport "Brilliant." Their voyage was tragic throughout. Eventually only three officers and forty-four men reaching the Malabar Coast.

In September 1782 the remainder of the 15th and the whole of the 16th, the latter numbering 988 of all ranks and 26 women, left England and arrived off Madras in April 1783. After the arrival of the 16th a composite battalion was made up from both regiments and sent to take part in the Siege of Cuddalore under (now) Lieut.-Col. Wangenheim.

On the 7th of June 1783, this battalion formed part of the force detailed to drive the French out of some advanced posts they had recently occupied and strongly fortified. In this the Hanoverians, though victorious, lost heavily, five officers and 64 men being killed and 12 officers and 137 men wounded. They were next engaged on the 25th of June 1783 when the French, who had been reinforced from the sea, made a determined sortie, which failed with heavy loss.

Amongst those who were made over to the charge of the Hanoverians until they could be despatched to Madras was a young serjeant named Bernadotte, who has wrongly been identified with the future Marshal of France and King of Sweden. This mistake is inexcusable because the real Bernadotte, many years later, in a spirit of mischief identified himself with the French serjeant of the "Regiment d'Acquitaine," taken prisoner at Cuddalore. As related by Colonel Wilks in his *History of Mysore* written in 1816, the story runs:

"Amongst the French prisoners taken in this sortie was a young serjeant who so attracted the notice of Colonel Wangenheim of the Hanoverians that he had the young man, who was wounded, conveyed to his tent where he was treated with kindness until his recovery and release. Many years later when the French Army under Bernadotte entered Hanover, General Wangenheim attended his Levee. When he was presented Marshal Bernadotte said:

'You have served a great deal in India, have you not? I also served there and at Cuddalore Have you any recollection of a

young French serjeant taken prisoner in a sortie whom you took under your protection?’

The circumstance being thus recalled to the memory of the General, he answered:

‘I do indeed remember the case and a very fine young man he was. I have entirely lost sight of him since, but it would please me greatly to hear of his welfare!’

‘That young serjeant,’ said Bernadotte, ‘is the person who now addresses you and is happy to have this opportunity of acknowledging the obligation and testifying his gratitude.’”

Now, Bernadotte was most certainly never in India as his recently published history testifies. I have seen it somewhere mentioned that after this Levee one of the Marshal's staff asked him how and when he came to be in India, at which he laughed and acknowledged that he had only been taking a rise out of the old General who had asked another of the staff if the Marshal might possibly be the Bernadotte he had befriended at Cuddalore.

This question was the subject of considerable discussion in the *Calcutta Statesman*, some years ago, and was finally settled by a letter from Mr. Little, then a well-known authority on Indian military history, who said that he had seen the name of the real Serjeant Bernadotte of the “Regiment d'Acquitaine” amongst a list of prisoners of war who volunteered for the Madras European Regiment in 1783. This was often done in those days by men who could not endure the horrors of a military prison in Madras, both French and English having companies of deserters and renegades in their armies.

When peace was declared and the siege of Cuddalore raised, the Hanoverians, who were now very sickly, returned to Madras. Soon afterwards two small composite battalions were formed and despatched to several parts of Southern India. They served against the Poligars and in operations near Calicut and Mangalore on the Malabar Coast, returning to Madras late in 1784. Next year the Hanoverian army was renumbered and the two regiments in India became the 14th and 15th Hanoverians.

At the same time, owing to their continual disagreements, both commanders were recalled, Colonel Reinbold being succeeded by another Wangenheim from the Hanoverian Horse and Lieut.-Colonel Wangenheim by Major Offenry who had commanded the composite battalion engaged in the operations in

the Poligar country. From August 1785 to March 1787 the two regiments were quartered at Arcot, during which time they suffered so severely from climatic causes that they mustered with difficulty a combined weak battalion. However, in April, they were transferred to Madras where a draft of 400 men joined them, which was followed in November by another of 212 men and two officers.

They remained at Madras until September 1788 when another composite battalion was despatched to deal with some trouble in the Northern Circars. Here it may be remembered that the contract stipulated that the Company should signify their desire to retain the services of the regiments if they wished to, at least two years before the expiration of the seven years in India. This they had not done in the belief that there would be no further trouble with Tippoo Sultan.

But the war with Tippoo Sultan, which broke out in 1789, brought home their miscalculations or lack of foresight to the Company and they were anxious to retain the regiments. To this, however, the senior Colonel, Wangenheim, would not agree on his own account, although he agreed that the regiments should remain in India until the case was referred to his own Government. The curious situation now arose that the Company had to pay and maintain two regiments which they could not employ as soldiers, as the agreements of all but the new drafts were expired. Unlike the Royal Army which could retain men on foreign service the Company could not. But the delay being no fault of theirs the men had to be fed and paid.

Finally, such men as cared to serve on garrison duty were specially re-engaged at special pay for six-weekly periods at first and later for six-monthly ones. Hence the regiments, though urgently needed, did not take part in the Mysore campaign of 1791-92, for it was not until December 1790 that orders permitting a re-engagement of from one to three years were received and by then sufficient troops were in the field.

However, the Company decided to recontract for only one regiment, and that for another year only, this being the 14th made up to 850 men and the usual complement of officers. The remainder of the 15th, totalling 425 all ranks and 20 women, sailed for England and thence to Hanover in January and April 1791. The 14th remained on garrison duty at Madras until the

beginning of 1792 when one party embarked for home, the other following in March, the combined total being 614 all ranks; 177 men who had some time to complete volunteered for British regiments and a number of others took their discharge in the country, most of whom entered the well-paid services of Indian princes.

A number of German names appear in the lists of European military adventurers who served Scindhia and Holkar, the most prominent being Heinrich Pohlmann who had been a serjeant in the 14th Hanoverians. He joined General de Boigne, Commander-in-Chief of Scindhia's regular forces, as a captain in 1792. In April 1795, he commanded the Brigade at Muttra to which the celebrated adventurer, James Skinner, was posted when he too entered the Mahratta service. This Brigade saw a great deal of service in which Pohlmann did so well that General Perron, who had succeeded de Boigne, removed the Scotch Colonel Sutherland from the command of the Second Brigade with which he rewarded Pohlmann.

In May 1800 he commanded a force consisting of his own eight battalions, five more of the Chevalier Dudrenac and 5,000 cavalry at the Battle of Malpura, where he defeated the Rajput Horse for the first time in their history. After the flight of General Perron from the Mahratta service, Pohlmann assumed charge of the Mahratta Army which he commanded at the Battle of Assaye, one of the hardest fought in British Indian military history.

Some years later he entered the Company's service as Colonel of the Agra Najib Corps on a salary of Rs. 800 per month. He died at Agra in 1820.

In conclusion we may give details of the fearful toll which the climate of Madras exacted from the Hanoverians. The total of all that sailed for India was 2,612 rank and file and 170 officers. Of the latter, six were killed in action, one was cashiered, one was killed in a duel and sixty-one died. Of the rank and file, about 70 were killed in action, 177 volunteered for British regiments and 60 took their discharge in India; 1,049 returned to Hanover, leaving 1,258 dead in India or on the route thereto in the space of less than ten years.

Those officers who were not absorbed into the Hanoverian Army or the British German Legion received half pay for the remainder of their lives, an expensive item for the Company as the last did not die until 1841.

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THE USE OF HEAVY TRANSPORT AIRCRAFT IN ARMY MAINTENANCE

BY CAPTAIN H. L. WYNDHAM

1. While the modernisation of the Army has resulted in an increase in tactical mobility it has, paradoxically enough, also resulted in a decrease in strategical mobility. The component parts of a striking force can now move much more rapidly about the battlefield than was possible fifty years ago. On the other hand that striking force can no longer cut itself adrift from its maintenance services, and live on the country, as used frequently to be possible. The rate of advance of the striking force is consequently now reduced to that possible for the maintenance services.

2. The main reasons why it is now essential for a striking force to keep in continuous contact with its maintenance services (for any period longer than two or three days) are as follows:

- (a) Employing modern weapons, an army may expend a far greater weight of ammunition in a given time than was formerly possible.

The striking force can consequently carry with it sufficient ammunition to last for a few hours only of hard fighting.

- (b) Humanity now demands that the sick and wounded should be evacuated with the minimum of delay. Even fifty years ago, they were frequently kept with the striking force for weeks on end.

- (c) Now that the 1st line transport of units is being mechanised and fighting vehicles are being added an ever-increasing supply of petrol is required and supplies of petrol will generally be destroyed by a retiring enemy. In any event, they will not be obtainable in any quantity in undeveloped countries. Further, mechanical vehicles need a large supply of highly specialised spare parts, which will not be obtainable locally.

In former days when 1st line transport was completely on an animal basis, transport could frequently carry on for long periods with local supplies.

The "hard" and "light" scales occasionally used in India reduce the firepower of a force and the comfort of the troops. Admittedly these special scales have their advantages when light opposition only is expected, but at best they cannot be regarded as more than a palliative.

3. The main difficulties which militate against a suitable rate of advance being kept up by wheeled road transport are as follows:

- (a) A smooth route, particularly over obstacles and through defiles, is essential. Obstacles and defiles exist in practically all potential theatres of war. Roads, and possibly bridges, will consequently almost always be needed.

Where roads exist in peace considerable demolitions in defiles are to be expected. Reconstruction must cause delay. Such delay will frequently be of long duration.

- (b) With the mass of transport required to maintain a force of any size, defiles will form suitable areas for enemy attack by land or air.

Typical defiles are the Khyber Pass and the routes through the desert of Sinai.

It was hoped that cross-country transport would do away with these difficulties. While, however, it may on occasion avoid or pass over small obstacles, it is as much confined to defiles by large obstacles as is road transport. It also is consequently subject to delay, to congestion and to enemy attack at such points.

Further, the requirements of petrol and demands on maintenance of cross-country transport are uneconomically high.

Pack transport requires less road-making than does any other type. Its radius of action is so short, however, that enormous numbers of animals are required, in several echelons, for distances which can be covered by mobile troops in one day. For instance, in the final operations in Palestine 23,000 camels were allotted to the maintenance of three cavalry divisions. Congestion and vulnerability to attack are consequently greater with this form of transport than with any other.

It is felt that the difficulties outlined above can be reduced, and the strategical mobility of the striking force greatly increased by the use of heavy transport aircraft on the line of communications.

4. In dealing with military problems, commercial methods of solving similar problems have to be approached with caution. Nevertheless, much can be learnt from commercial methods, provided they are considered in the light of military conditions.

Nowhere else in the world has the transport of heavy goods by air been developed to as great an extent as in New Guinea. Further, the conditions of weather and terrain there are more difficult than in any likely theatre of war.

The most important area served is the gold mining district of Bulolo, approximately 50 miles from the coast. That proportion of the population directly dependent for all requirements, except vegetables, on supplies from the coast was, in 1931, 600 whites and 2,500 natives. Those members have since increased very considerably.

The terrain, including that of the district itself, is extremely mountainous and heavily wooded, and the rainfall is heavy (72 inches have been experienced in three months).

Air transportation of all requirements commenced in 1927.

At any rate up to 1934, no road was constructed from the coast to the district since air transportation could be more quickly established when the district was first opened up, and was considered more economical. All supplies and stores required have been carried by air to various landing grounds in the district. Transport from these landing grounds is by pack or porter.

Flying is liable to interruption for short periods through mist.

The aircraft used are mainly Junker G-31 (probably 1929 model), converted from passenger type. The conversion was simple and included the fitting of a large hatchway in the roof. These aircraft are constructed of duralumin, and are not affected by weather conditions. Their useful lift is $3\frac{1}{2}$ tons. Their main disadvantage, as compared with other types, lies in the fact that they are not fitted with slots or other devices to check speed in landing. They consequently have a high landing speed, which necessitates 1,000 yards of runway in landing grounds. They also have the centre of gravity placed so far back, to enable long girders to be carried, that ballast has to be used when cargo is not carried.

From experience gained in New Guinea since 1930 and in South America, the life of these aircraft is estimated at 10 years,

though engines would have to be changed after 3,000 hours flying, *i.e.*, after 300,000 miles.

As the aircraft themselves need practically no maintenance, the trained personnel required for two aircraft was up to 1934 limited to three pilots, two mechanics per aircraft for engine maintenance, and one mechanic for engine inspection after each flight.

One accident occurred in the main transportation company—Guinea Airways—in 5,987 trips, during which 7,000 passengers and 5,400 tons of cargo were carried. The maximum tonnage carried in one month was 581 tons, and in one day by two aircraft 19 tons, in 1931.

Loads carried are of every conceivable type and shape, from motor cars and cattle to the component parts of dredges, each dredge weighing over 1,200 tons—the heaviest unit weighed $3\frac{1}{2}$ tons.

Owing to the mountainous and wooded nature of the country, and to the size of landing ground required, sites for the latter are scarce and need much preparation by large gangs. Still, in one area 20 miles square, five landing grounds have been made. To counteract the glare of the white soil they are planted with couch grass, which grows rapidly and prevents breaking up of the surface by heavy traffic.

Transportation costs to the customer, covering maintenance and profit to Guinea Airways, but excluding insurance and capital outlay, were in 1931 £ 16 per ton, based on carriage of 2,230 tons. This cost has since been considerably lowered, freight charges having been reduced by 66 per cent.

5. If equivalent results could be expected from the use of heavy transport aircraft in army services, there would be no maintenance problem. The advantages of such swift and sure transport over so great a radius of action would far outweigh adverse considerations.

In the case of military transport there is, however, a very definite problem, based mainly on the following factors:

- (a) Under mobile conditions, the forward end of the airline is subject to frequent and rapid changes of location. The landing of aircraft without delay will not, therefore, always be practicable.

- (b) Under static conditions, the requirements of large forces, particularly in ammunition and reinforcements, are likely to exceed any available resources in air transport.
- (c) Some items required by fighting forces, such as tanks or artillery, are too heavy for any aircraft of handy size.

It is obvious then that air transport cannot possibly give a solution to every problem of maintenance or evacuation. It is not to be condemned for that reason, since no single form of transport can do so under modern conditions.

6. Experience of the large well-made aerodromes common in India leads to misconception as to the facilities actually essential. Some twelve years ago, landing grounds in Mesopotamia, which were no more than 350 yards square, were used for prolonged operations.

The necessary size of landing grounds is tending to decrease. Recent developments assisting to this end are—

The slot device, mentioned above, which can be used to reduce landing speed very considerably;

Brakes on the landing wheels, and

The variable pitch propeller.

It is not intended to discuss the use of helicopters, as their suitability for the carriage of heavy loads has not yet been proved.

All that is really necessary for heavy transport aircraft of modern types is a clear runway of from 500 to 600 yards in the direction of the prevailing winds, provided that there are no obstructions to flight in the near vicinity of the runway. Prevailing winds in mountainous country generally run up and down the valleys, in which directions runways of the length required are usually most easily obtained. Moderately stony or slightly uneven ground is not a serious disadvantage, but sharp ridges, furrows, ditches or mounds liable to make the aircraft jump have to be levelled. The larger the aircraft, the less it is affected by inequalities of the ground. Fully loaded aircraft need a longer runway in order to rise than do those lightly loaded; in maintenance the load is in practice always greater than in evacuation; landing does not need so long a runway as does rising. The runway at the forward end of the airline, the end where ample space is least likely to be obtainable, need not, therefore, be as long as that at the base.

Landing grounds used for heavy and continuous traffic would, in most types of country in the East, have to be treated to prevent excessive breaking up. Such traffic is not to be expected in mobile operations and the time required for treatment is automatically provided if operations become static.

The extent to which and the rapidity with which landing grounds can be provided must obviously depend on the type of country in which operations are being carried out. The construction of roads, it must be remembered, depends on the same factor. The worst conditions likely to be met in the defence of India are those of the North-West Frontier. Even in that area sites suitable for development into landing grounds are certainly available at intervals of, at the maximum, 20 miles in almost all the valleys. It is equally certain that such sites could usually be developed far more quickly than could a road fit for M.T. in similar terrain and over similar distances, *i.e.* the delay caused to the striking force would be much less in the case of the former.

Frontier terrain varies so much that any useful estimate of labour and cost could only be made on a given situation. The labour would in some cases be *nil*; in some that which could be provided by troops on the spot; in other cases it would entail the attachment of large gangs of labour to the striking force.

In any event, air and other reconnaissance could provide the information, prior to a move, on which arrangements for the necessary labour would be based together with the decision as to whether air transport could or could not be used.

In many cases it would, then, undoubtedly be possible to provide a new landing ground soon after the arrival of the foremost troops and without the use of special labour. Landing grounds likely to be required in our own territory can often be constructed in peace, when cost and other considerations make the construction of roads inadmissible. In such cases there will be no delay in either maintenance or evacuation.

In Palestine, during 1917 and 1918, heavy transport aircraft of types now available could almost always have landed within the radius of action of transport which accompanied formations, without any preparation of landing grounds. The only exceptions would have been in the Judean Hills and possibly sometimes during the final advance.

It is understood that aircraft landed on unprepared ground on several occasions to deliver supplies to an armoured force during the recent operations of the Italians in Abyssinia.

7. When the L. of C. depends on land transport, and that transport cannot keep up with the rate of advance of the striking force, the striking force has no alternative but to halt.

If aircraft are used, and delay occurs owing to preparation of landing grounds being necessary, the striking force can still be maintained by supply-dropping. The need to halt will not, therefore, arise until evacuation of the sick and wounded becomes essential.

Further, since supply-dropping can always be counted on when necessary, the striking force need not carry large reserves.

Supply-dropping should be regarded as a temporary expedient rather than as a normal practice. There are three reasons for this attitude:

- (a) The weight of the unit which can be dropped is limited to two maunds by existing or likely types of parachute.
- (b) The supply of parachutes will never be inexhaustible—once used, they must be returned quickly.
- (c) Supply-dropping provides no solution to the problem of evacuation.

However, supply-dropping will on occasion be used (it is frequently used nowadays for the supply of besieged posts and of small forces). It would be advisable to select aircraft, therefore, for army supply, which have their centre of gravity further forward than in the case of the Junker G-31. This is merely a matter of design. Otherwise, the weight of ballast which would have to be carried to trim the aircraft, as supplies were dropped, would reduce the useful load. Heavy transport aircraft of the type visualized should also be provided with a hatchway in the bottom of the cargo cabin. When loads are intended to be dropped, they are fitted with parachutes prior to being loaded. Under these circumstances, two men in the aircraft could handle and drop up to three tons of cargo without undue labour or delay.

8. Most opponents of transportation by air fear interruption to supply through adverse weather conditions or enemy air action. It is suggested that the danger and extent of such interruption is exaggerated, and that its effect need not be of great importance.

It is unlikely for instance that operations will ever be carried out under conditions worse than those affecting the evacuation by air of personnel from Kabul in 1930. No serious interruption occurred in that case, though the aircraft used were far inferior to some now available.

Enemy air action would be unlikely to have much effect against heavy transport aircraft, owing to their great power of evasion. Evasion is, incidentally, aided by bad weather.

Air forces are much more confident of their effect against land transport than they are of their effect against enemy aircraft.

It is suggested that any danger of interruption could adequately be covered by dumping at the forward landing ground. Such dumping should be limited to the maximum amount likely to be required under the circumstances of each case. It would then not violate the principle of fluidity, which, under the present system, permits of similar dumping where danger of interruption exists in ground lines of communication.

The effect of enemy action from the ground is immeasurably greater against ground transport than against air transport. In the case of ground transport it necessitates the dissipation of military force in protection of the L. of C. In uncivilised countries, or when enemy armoured forces are to be expected in future, this dissipation of force may easily result in insufficient troops being available with the striking force. It is in any event most uneconomical.

Where aircraft alone are used on the L. of C. ground protection will be needed forward of and inclusive of the foremost landing ground only.

9. At the same time, prolonged operations will almost always result in situations which are static for long periods. When such operations are expected and in any event in the case of very large forces, the use of existing roads and the construction of others will be inevitable. In some cases, roads in their turn will have to be followed by railways. Under these circumstances, the necessity to disperse resources on road protection duties as the road gets forward must be accepted. The striking force may have to await the arrival of roadhead before undertaking deliberate operations. The use of air transport will nevertheless have enabled it to perform more during the mobile phase than would have been possible had it been tied to roadhead throughout.

Provided air transport was still employed during this static phase, the scale of M.T. could be very considerably reduced. There would also be no need for it to use the road every day. Periods of rest for M.T. and for a proportion of the road protection troops would then become automatic, and reliefs would not have to be specially provided.

10. The units of a force cannot expect direct delivery from aircraft. Some form of transport must then accompany the force in all circumstances for purely local delivery purposes.

The type of this transport will depend on the circumstances of each campaign. It is essential, however, that all vehicles taken should have as high a degree of cross-country capacity as is practicable. Otherwise, the immobility of the force itself, and not that of its rear services, will cause delay.

Subject to this proviso, the use of mechanized transport where possible will reduce the load to be delivered to the striking force except in country where ample local supplies for animals are available.

The present organization used to accompany columns moving on light or hard scales and closing the route behind them would appear to be most suitable, whatever type of transport were used. That is, transport companies providing first-line transport to units and column reserves of supplies, ammunition and baggage.

11. In most circumstances, transport by air is more expensive than is that by rail or by M.T. At the same time, it should be kept in mind that in war the only sound criterion is, within reason, whether value obtained balances with expenditure incurred.

The advantage of cheapness is not, however, heavily on the side of M.T., if all sources of expenditure are taken into consideration.

The construction of landing grounds will frequently cost less than that of roads. Aircraft constructed of duralumin, as has already, been shown, need far less maintenance than does M.T. Judging by the experience of Guinea Airways, the saving in personnel in using modern heavy transport aircraft should be considerable, compared with that required for existing types of R.A.F. aircraft, for M.T., or for animal transport.

There is no reason why 5-ton aircraft should not be used on the landing grounds already described, but 3-ton aircraft are more

likely to be readily available, at least at the outbreak of any campaign in the near future. One of the latter capacity can easily carry daily, in two trips, six tons of cargo over a distance of fifty miles, when eight 30-cwt. lorries would be required, in two echelons, for the same task. The aircraft could, if required, increase the distance to 150 miles—quite a reasonable distance for a force ahead of railhead in mobile warfare. For that task, at least twenty-four 30-cwt. lorries would be required, in six echelons.

The capital cost involved in providing the defence forces of India with heavy transport aircraft, on the scale which would be advisable for major operations, is, however, too high for it to be a practicable proposition in peace. The cost of such aircraft—apart from other sources of expenditure—is about £ 20,000 each.

Further, the use of such transport for military work would be uneconomical in India in peace where roads are available and do not need to be protected.

It is, however, for consideration whether heavy transport aircraft could not economically be used for the maintenance of certain outposts—for example, that in Chitral—in peace.

Under these conditions then, reliance should be placed mainly on a portion of the resources of commercial airlines in India, now in operation or projected, supplemented by factory supply. Such airlines should be subsidized to ensure, firstly, that their aircraft would conform to essential military specifications and, secondly, that they would be available on general mobilization. The aircraft used in Guinea Airways were easily converted from passenger types. Subsidies have been used in the case of commercial motor transport. In 1914, London buses were requisitioned at a time when conditions amounted to those of a major expedition only.

12. It is, however, of the first importance that, at the least, a nucleus should be maintained in peace, to allow for training and experiment, and to form a basis for expansion in war. Experiment, with a view to improving the performance of aircraft, is advisable.

The R.A.F. in India already has a bomber transport flight. These machines, however, are of small cargo capacity and of types not specially designed for heavy transport work. Their use for such work could only give a false picture of its potentialities. They would seldom be available for continuous supply work. It is for these reasons that the term "heavy transport" has been used

throughout, and that the formation of a separate branch for such work is recommended. Such aircraft might occasionally be used for work outside their normal sphere, as are other types, but not when required for their own specialist work.

In forming this branch, aircraft should be obtained which conform to the following specifications:

- (a) Three-ton cargo capacity. Hatchway in both top and bottom of cabin.
- (b) Landing speed not exceeding 60 m.p.h. Brakes.
- (c) Rising performance, loaded, of 400 yards, in calm, on slightly uneven ground, at 6,000 feet altitude.
- (d) All metal construction.
- (e) Ability to maintain height fully loaded with one engine cut out.
- (f) 12,000 feet ceiling. Radius of action, 200 miles.
- (g) Centre of gravity suitably placed for flight without load.
- (h) Large and widely spaced landing wheels.

There is no question but these specifications can be complied with now by aircraft manufacturers, and that the resulting performance can be improved in the future.

The nucleus originally organized might be expanded to the scale necessary to support a minor expedition (say, two flights of five aircraft each). Such expansion should be dependent on proof, obtained through training and experiment, that the claims outlined in this article are sound.

Provided the value in war of heavy transport aircraft is accepted, it would be no more extravagant to maintain in peace the number likely to be required at short notice than it is to maintain other types of air forces.

13. As has been indicated in preceding paragraphs, the use of heavy transport aircraft in place of other forms of transport on the L. of C. would by no means be universal. Further, the supply of aircraft would, at least for some years, be limited. The question of their use in any particular area should, therefore, be decided by the commander responsible for the whole of the operations envisaged. Their mobility enables them to be concentrated where required with the minimum of delay.

It is suggested, therefore, that the organization should be highly centralized, and that orders for its employment should be issued through the Movements Staff, as is the case with railways.

14. The main conclusions arrived at may be summarised as follows:

- (a) In the highly mobile type of warfare, for which we are training, the striking force must not be delayed through inability of the rear services to keep up with it. Rapid movement over considerable distances is entailed.
- (b) The use of ground transport alone must inevitably result in such delay. It also entails the dissipation of troops in road protection duties.
- (c) The use of heavy transport aircraft, sometimes to supplement, sometimes to replace, ground transport, would reduce this delay.

It would result in a saving in road protection troops which in some cases would be considerable. Where used to supplement ground transport, it would also result in a saving in that transport, and would consequently reduce congestion on roads.

- (d) A nucleus of such aircraft should be maintained in peace. This nucleus might advantageously be expanded to the scale necessary to support minor expeditions, but reliance should be placed on commercial resources for the extra expansion necessary in the case of major expeditions.

LETTERS TO THE EDITOR

MESOPOTAMIA CAMPAIGN

SIR,

As Colonel Shearer's admirable lectures on the Mesopotamia Campaign, published in your issue of October 1936, are written primarily for candidates for promotion examinations, I feel I must call attention to two inaccuracies, more especially as a lesson is affected.

In para. 31 of his last lecture he says two lessons stand out in his mind above all others.

One of these: "The unfairness to the attacking troops of attempting to gain surprise by dispensing with preliminary bombardment."

In support of this he cites the attack of the 36th Sikhs and 45th Sikhs on 1st February 1917 on the main Turkish position on the west bank of the river Hai.

On this occasion there was no attempt to gain surprise by dispensing with a preliminary bombardment as the following extract from the 37th Infantry Brigade Orders for the attack will show:

"The 37th Brigade is to capture the double line of trenches between P 13m to P 13b to P 13n and N 28a.

Zero 12.10 p.m.

'From 9.30 to 9.33 a.m., there will be a dummy intense bombardment of the front P 13n to N 28a.' The Artillery on the west bank, assisted by the Artillery on the east bank, will continue wire-cutting and bombardment of enemy's position on the west bank from 7.30 a.m. to 12 noon.

From 12 noon to 12.20 p.m., intense bombardment to assist the assault.

The bombardment will lift from the front trenches to . . . at 12.14½ p.m.

From 12.20 to 12.40 p.m., general bombardment and barrage.

From 12.40 p.m. Artillery will be in readiness to deal with counter-attacks."

The only attempt to gain surprise was by means of the "dummy bombardment" at 9-30 a.m.

Heavy casualties were inflicted on the attacking troops during the advance by enfilade M.G. fire from the left flank.

These M.G.s had been located prior to the assault. The Brigadier-General Commanding the 37th Brigade had asked for this area to be included in the artillery bombardment, but his request was not acceded to by the Higher Command.

Colonel Shearer makes another mis-statement when he says that "his own brigade" (the 36th Infantry Brigade) carried out the same attack successfully the next day. The attack was carried out by the 1/4th Devonshire Regiment, the 1/2nd Gurkha Rifles (both of the 37th Brigade) and the 62nd Punjabis (36th Brigade)—all under Command of the 37th Brigade. The artillery programme for this attack was adjusted in the light of experience gained on the previous day.

Yours faithfully,

STIFFY.

BASIC ENGLISH

SIR,

I should like to express my appreciation of the interest which regimental officers have taken in the teaching of English to sepoys, and which is illustrated by the article of Lieut.-Colonel Wilkinson in your January issue. At the same time, I cannot agree that we have only the alternatives of verbiage and Basic English.

This new form of English is being recommended by a group of scientific writers, of whom Mr. Wells is the chief. It is part of their plan to make the world tidier, but they do not use it themselves. Scholars with a specialised training in languages, so far as I have been able to ascertain, do not support it.

The chief objections to Basic English, or to any similar system, are—

- (1) It requires an Englishman to relearn his own language. If the sepoy learns to talk "Basic," the officer must learn to keep within the Basic vocabulary. The result, within a generation, would almost certainly be a sort of "coast English" or "pidgin."
- (2) It is not sufficiently responsive to change. The originator of "Basic" English proposes an international academy

to sanction or blackball words, but the history of language shows that whenever scholars have attempted to "fix" a language, ordinary people have taken no notice of their orders. Another "dead language" has been instituted, and a living language has continued to evolve, and to reflect the changing environment of its speakers.

Verbiage is frequent in military writing because officers too often treat written English as a second language, and not as an extension of their speech. When they speak (according to Professor Wyld, no mean authority), they speak a "better" English than is found amongst any other body of Englishmen, a speech that is usually both concise and courteous. Those officers (and British N.C.O. instructors) who have deliberately simplified their own idiomatic speech, in dealing with sepoy, have been successful as teachers. This is the language in which the "Fauji Akhbar" and the "English Primer" (a General Staff publication) are written: it is almost as bald as "Basic," is far more comprehensive and flexible, and offers to the educated Indian soldier an approach to English thought, through the medium of standard English books.

Yours faithfully,

A. C. T. WHITE,

Lieut.-Colonel,

Army Educational Corps.

REVIEWS

Survey of International Affairs

By ARNOLD J. TOYNBEE ASSISTED BY V. M. BOULTER.

[(*Oxford University Press*), Vol. I, 18 sh.; Vol. II, 21 sh.]

VOLUME I.

As stated in the preface the main subject of Volume I is "the beginning of a competition in rearmament between Germany and the other Great European Powers, in sequence to the final collapse of the World Disarmament Conference." For the first time since 1925 the Survey has been expanded to cover two volumes. Volume II is devoted to the Italo-Abyssinian conflict. The European part of Volume I opens with the adjournment of the Disarmament Conference, consequent on the withdrawal of the German delegates, and extends to the eve of Germany's re-occupation of the Rhineland on 7th March 1936.

Students of international affairs have rightly come to look upon these Surveys as invaluable sources of reference. The present volume enhances that reputation. Moreover, the general reader need not fight shy of it. The bulk of the work is recorded in an eminently readable style. The author does not hesitate to express his point of view in a manner which is at times forcible. Thus, referring to the ill-timed publication of the British Government's White Paper on defence on 4th March 1935, three days before Sir John Simon was due to leave for Berlin to discuss with Herr Hitler matters relating to security, the author states, "The British Government had been guilty not of malicious sabotage but of slovenly incompetence. Their right hand genuinely did not know what their left hand was doing."

In a work of this nature, covering so comprehensive a subject, the arrangement of the material is all important. By devoting separate sections to North-Eastern Europe and the Far East the authors have lightened the task of the reader in exploring the complicated maze of international affairs. The path is shadowed with negotiations for disarmament rendered barren by a note of fear. The gloom is but scarcely relieved by the Anglo-German Naval Agreement, in announcing which "the British Government emitted the tones of triumph and apology in the

same breath," fearfully (and correctly) anticipating French reaction.

On the subject of the Franco-Russian Pact, Mr. Toynbee refrains from personal observation contenting himself with the statement that "it was a testimony to its value that Germany should have reacted so energetically to its signature, and still more to the prospect of its ratifications."

Of the Far East, Mr. G. E. Hubbard (who contributes this section) has a no more comforting tale to unfold. Here the dark shadow of Japanese expansionism, so recently exemplified in Manchuria and China, has crept south and created a nervousness in the Philippines, where the joys of independence are tempered by "the withdrawal of American protection at a time when it might be urgently needed."

The volume ends on a more cheerful note provided by Mr. H. V. Hodson, who, in surveying economic affairs, concludes that "recovery in spite of instability was the *mot d'ordre* of world economic history in 1935."

The volume includes an excellent map of the Far East. A map of Europe would be an addition welcomed by many readers whose geographical knowledge probably does not embrace such places as Zips, or even Teschen.

VOLUME II.

The survey of Italo-Abyssinian relations is carried as far as the annexation of Ethiopia in May 1936, and the liquidation, in June and July 1936, of the arrangements made by the Sanctionist Powers for mutual assistance in the Mediterranean.

From the military standpoint the book is valuable because it gives, in Section XI, a short, clear and readable account of the Italian operations, without, however, attempting more than a chronicle of events. The details of the negotiations for mutual assistance in the Mediterranean between Great Britain and other members of the League will also interest the student of Imperial Defence; particularly the estimate given of the losses which the Navy would have incurred in defeating the Italians. On this estimate, the Cabinet is said to have based its policy; and it is significant that Professor Toynbee states, categorically, that it was the fear of subsequent action by Germany or Japan, rather than the immediate problem of the control of the Mediterranean, which decided Mr. Baldwin's Government.

But the real interest of this volume is not the story it tells, but the point of view from which it is told. Professor Toynbee makes little attempt to be impartial. He writes as a militant pacifist, as a whole-hearted supporter of Geneva, and as one who would see our commitments under the League discharged to the full extent of our armaments. An authoritative record of international affairs should not be so coloured by the views of the historian. Nonetheless, those views deserve study, particularly by soldiers; for it is partly due to them that our rearmament programme has met with only nominal opposition at home.

Professor Toynbee blames Great Britain and France for not fulfilling their obligations under the League. He takes the view that by failing to stop Italian aggression, we abdicated our position as a nation. As a consequence, we missed an opportunity to check aggression, and to maintain peace—an opportunity which may not occur again. His arguments are well stated, the more so because the other side of the picture is fairly presented to the reader; but it is typical that those arguments are never connected with a demand that Britain should be strong enough to meet her obligations; and the crippling effect of the policy of 15 years' starvation of our Defence Forces is completely ignored.

Professor Toynbee goes farther. He is convinced that it is expedient, as well as equitable, that Britain should support the League of Nations. He thinks that the only way to ensure that other nations of our Commonwealth will always take a direct and immediate interest in the defence of Great Britain is to draw them into a collective system of security under the League. This may seem far-fetched; but it would be idle to deny that there is some force in the argument.

The views expressed in this volume will annoy many people. According to temperament, they will be regarded as mischievous pacifism or impracticable idealism.

Having made this criticism it is only fair to add that Professor Toynbee has maintained the very high standard of completeness and accuracy to which we have grown accustomed. As works of reference both volumes are of course invaluable.

D. A. L. W.

G. W. W.

OFFICIAL HISTORY OF AUSTRALIA IN THE WAR OF
1914—1918, VOLUME XI

By ERNEST SCOTT

This volume deals not with battles but with events in Australia itself. The first half is concerned mainly with politics, while the second covers Australia's financial and economic problems, labour troubles, the Peace Conference and the repatriation of Australian forces.

Two general elections were held during the war. The first was inevitable since both houses had been dissolved in 1914. The second resulted after the labour party split on the conscription question.

The history of the conscription campaign which was waged with great bitterness is of interest. A referendum was held twice and on each occasion there was a considerable majority against conscription. One wonders what would have been the result of a similar referendum in England in 1916. That Mr. Hughes was able to survive a defeat on what had been one of the main planks of his programme is remarkable.

The chapter on the equipment of the Australian Forces contains several valuable lessons. Clothing, harness and small arms were already manufactured indigenously and production was successfully expanded. But the attempt to manufacture other munitions failed largely owing to the lack of peace time experience.

Much of the book is devoted to a eulogy of Mr. Hughes, Prime Minister from October 1915 to the end of the war; and there can be no doubt that the Empire owes a great debt to this indefatigable Welshman. At times he was inclined to place Australia's needs above those of the Allies as a whole, as when he purchased, to carry the wheat crop, ships more urgently needed for other purposes. At times he struck a hard bargain with the Home Government but he will always be remembered for the energy with which, both in Europe and in Australia, he urged the prosecution of the war.

At the Peace Conference he was less successful, being a keen protagonist of "making Germany pay" irrespective of her capacity to do so.

The volume is complete with valuable statistics and figures and forms a useful addition to the literature of the Great War.

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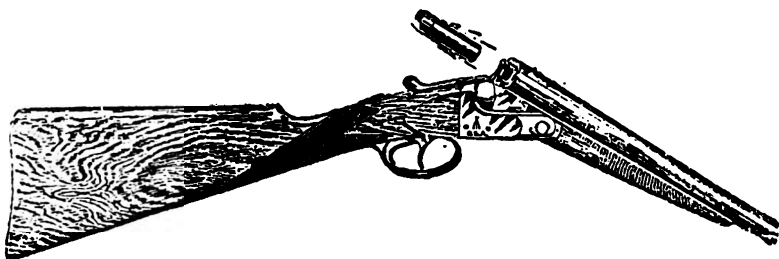
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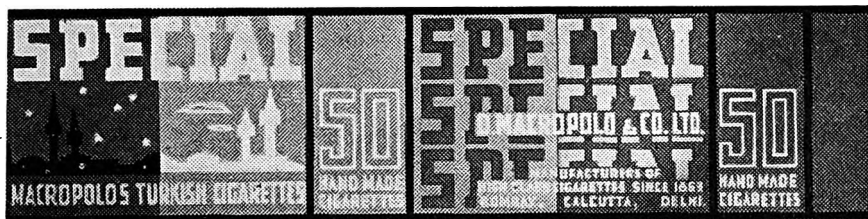
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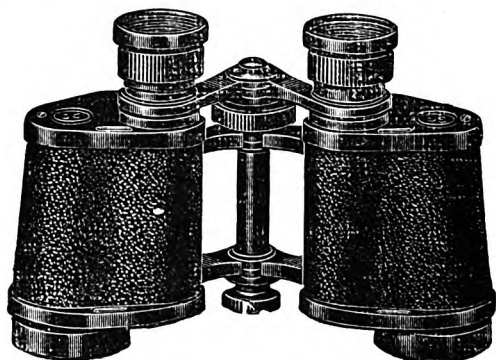
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United Service Institution of India

JULY, 1937

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I.—NEW MEMBERS

The following new members joined the Institution from 1st March to 31st May 1937:

Ordinary Members:

Sir Charles C. Chitham, K.T., C.I.E.
 The Hon'ble Mr. R.M. Maxwell, C.S.I., C.I.E., I.C.S.
 C.McI.G. Ogilvie, Esq., C.B.E., I.C.S.
 G.W. Benton, Esq., Indian Police.
 Major-General D.S. Skelton, C.B., D.S.O.
 Brigadier W.H. McN. Verschoyle-Campbell, O.B.E., M.C.
 Colonel J.A. Manifold, D.S.O., M.B.
 Squadron Leader A.J. Cox, M.B.E.
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 Major D.A.L. Wade, M.C.
 Captain D. Ross.
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 Captain S.T. St. John Parry.
 Lieut. I.R. McIntosh.
 Lieut. Mohd. Moinuddin Ahmad.
 Lieut. Prithvi Jeet Singh.
 Lieut C.E. Watson-Smyth.
 2/Lieut. C.K. Freer.
 2/Lieut. Ranbir Singh Sidhu.

II.—THE JOURNAL

The Institution publishes a quarterly Journal in the months of January, April, July and October, which is issued postage-free to members in any part of the world. Non-members may obtain the Journal at Rs. 2-8 per copy, or Rs. 10 per annum. Advertisement rates may be obtained on application to the Secretary.

III.—CONTRIBUTIONS TO THE JOURNAL

Articles may vary in length from two thousand to ten thousand words. They should be submitted in duplicate and typewritten on one side of the paper. Manuscript articles cannot be considered. Payment is made on publication at from Rs. 40 to Rs. 150 in accordance with the value and length of the contribution.

With reference to Regulations for the Army in India, paragraph 204 and King's Regulations, paragraph 535, action to obtain the sanction of His Excellency the Commander-in-Chief to the publication of any article in the Journal of the United Service Institution of India will be taken by the Executive Committee of the Institution.

The Committee reserve to themselves the right to omit any matter which they consider objectionable.

Articles are only accepted on these conditions.

IV.—READING ROOM AND LIBRARY

The United Service Institution of India is situated on the Mall, Simla, and is open all the year round—including Sundays—from 9 a.m. until sunset. The Reading Room of the Institution

is provided with most of the leading illustrated papers, newspapers, magazines and journals of military, naval and service interest.

There is a well-stocked library in the Institution from which members can obtain books on loan free in accordance with the following rules—

(1) The library is only open to members and honorary members, who are requested to look upon books as not transferable to their friends.

(2) No book shall be taken from the Library without making the necessary entry in the register. Members residing permanently or temporarily in Simla are requested to enter their addresses.

(3) A member shall not be allowed, at one time, more than three books or sets of books.

(4) No particular limit is set as to the number of days for which a member may keep a book, the Council being desirous of making the Library as useful as possible to members; but if after the expiration of a fortnight from date of issue it is required by any other member, it will be recalled.

(5) Applications for books from members at outstations are dealt with as early as possible and books are despatched post free per Registered Parcel Post. They must be returned carefully packed per Registered Parcel Post within one month of the date of issue.

(6) If a book is not returned at the end of one month, it must be paid for if so required by the Executive Committee. Lost and defaced books shall be replaced at the cost of the member to whom they were issued. In the case of lost books which are out of print, the value shall be fixed by the Executive Committee and the amount, when received, spent in the purchase of a new book.

(7) The issue of a book under these rules to any member implies the latter's compliance with the rules and the willingness to have them enforced, if necessary, against him.

(8) The catalogue of the Library is available for sale at Rs. 2-8 per copy plus postage. The Library has been completely overhauled and all books re-classified, hence the catalogue meets the general demand for an up-to-date production containing all military classics and other works likely to be of use to members of the Institution. Members who have not yet ordered their copies are advised to send a post card to the Librarian of the Institution, Simla.

V.—LIBRARY BOOKS

A list of the books received during the preceding quarter is enclosed in loose leaf form suitable for cutting into strips for pasting in the Library catalogue.

The Institution is in possession of a collection of old and rare books presented by members from time to time and, while such books are not available for circulation, they can be seen by members visiting Simla.

The Secretary will be glad to acknowledge the gift of old books, trophies, medals, etc., presented to the Institution.

VI.—PROMOTION EXAMINATIONS

(a) *Military History*—(Reference I. A. O. 257 of 1935).

The following table shows the campaigns on which military history papers will be set for Lieutenants for promotion to Captain in sub-head *b* (iii), and for Captains for promotion to Major in sub-head *d* (iii), with a list of books recommended for the study of each—

1 Serial No.	2 Date of Examination.	3 Campaign set for first time.	4 Campaign set for second time.	5 Campaign set for last time.
1	October 1937.	Mesopotamia, from 12th March 1917 to the Armistice.	The Russo-Japanese War, previous to the Battle of Liao-Yang until the 24th August 1904 (excluding the actual siege operations at Port Arthur).	..
2	March 1938.	..	Mesopotamia, from 12th March 1917 to the Armistice.	The Russo-Japanese War, previous to the Battle of Liao-Yang until the 24th August 1904 (excluding the actual siege operations at Port Arthur).
3	October 1938.	..	..	Mesopotamia, from 12th March 1917 to the Armistice.

The following books are recommended for the study of the campaigns—

Campaign.	Book.
Mesopotamia— October 1937 to October 1938. ..	History of the Great War—Military Operations—Mesopotamia, Vols. III (Chapters XXXIV <i>et seq</i>) and IV. A Brief Outline of the Campaign in Mesopotamia, 1914—1918. Major R. Evans, M.C. (<i>Sifton Praed</i>).
The Russo-Japanese War ..	Official History of the Russo-Japanese War, Parts I (second edition) and II (<i>British Military</i>), or Official History of the Russo-Japanese War, (Naval and Military), Vol. I, Chapters 1—17 (less 4, 7, 9 and 10).

The campaigns set for Majors, R.A.M.C. and R.A.V.C., up to and including 1937, are published in I.A.O.s 72 of 1935 and 49 of 1936.

(b) *Other Subjects.*

In addition to the manuals and regulations mentioned in K.R. and R.A.I., the following books are recommended—

"Modern Military Administration, Organisation and Transportation" (Harding-Newman), 1933.

"Military Organisation and Administration" (Lindsell), 1937.

"A. and Q. or Military Administration in War" (Lindsell), 1933.

"Military Law" (Banning), 1936.

"The Defence of Duffers' Drift" (Swinton), 1929.

"Tactical Schemes, with solutions, Series I and II" (Kirby and Kennedy), 1931.

"Elementary Tactics or the Art of War, British School," Vol. I (Pakenham Walsh), 1926.

"Imperial Military Geography" (Cole), 1935.

"Elements of Imperial Defence" (Boycott), 1936.

"A Practical Digest of Military Law" (Townsend-Stephens. Pub. Sifton Praed), 1933.

VII.—*STAFF COLLEGE EXAMINATION*.—[See Staff College, Quetta, Regulations, 1930, obtainable from the Manager of Publications, Delhi or Calcutta.]

(a) Campaigns.

The following campaigns have been set for the Staff College Entrance Examination—

Strategy of—

Napoleon's Campaign of 1796 in Italy.

Waterloo Campaign.

Peninsula Campaign, up to and including the Battle of Salamanca.

The Strategy and Broad Tactical Lessons of—

The American Civil War.

Russo-Japanese War, up to and including the Battle of Liao-Yang.

The Great War in France, Belgium, Mesopotamia, the Dardanelles and Palestine, including a knowledge of the influence on the strategy in these areas of the events in other theatres of the War.

The East Prussian Campaign, 1914.

The Strategy and Tactics of—

The Palestine Campaign from 9th November 1917 to the end of the War.

The Action of the British Expeditionary Force in France and Belgium up to and including the first battle of Ypres.

The 3rd Afghan War, 1919.

(b) In addition to his official books every student is recommended to provide himself with a copy of—

(i) Military Organisation and Administration (Lindsell), 1937.

Military Law (Banning), 1936.

British Strategy (Maurice), 1929.

Notes on the Land and Air Forces of British Overseas Dominions, Colonies and Protectorates (Official), 1934.

Outline of the Development of the British Army up to 1914 (Hastings Anderson), 1931.

Imperial Military Geography (Cole), 1935.

An Atlas.

(ii) The following pamphlets, etc., can be borrowed from the Orderly Room, and should be studied—

Examination papers for admission to the Staff College.

Training Memoranda—War Office.

Training Memoranda—A.H.Q. India.

Notes on certain Lessons of the Great War.

Passing it on (Skeen).

- (iii) Periodicals, etc., to which students should subscribe—
 "The Times."
 "U. S. I. (India) Journal."
- (iv) Books which can be obtained from libraries—
 (Note.—Those marked with an asterisk should be used
 only as books of reference.)
 R. U. S. I. Journal.
 Army Quarterly.
 Round Table.
 Journal of the Institute of International Affairs.
 Science of War (Henderson), 1905.
 Transformation of War (Colin), 1912.
 The War of Lost Opportunities (Hoffman), 1924.
 *The Principles of War (Foch), 1918.
 *The Direction of War (Bird), 1925.
 Soldiers and Statesmen (Robertson), 1926.
 *Historical Illustrations to F. S. R. II (Eady), 1926.
 *The British Way in Warfare (Liddell Hart), 1932.
 *Napoleon's Campaign in 1796 in Italy (Burton), 1912.
 *Waterloo Campaign (Robinson).
 *Outline History of Russo-Japanese War, 1904, up to
 the Battle of Liao-Yang (Pakenham Walsh), 1935.
 *The World Crisis (Churchill), 1931 (abridged and
 revised edition).
 *A History of the Great War (Cruttwell), 1936.
 The Palestine Campaign (Wavell), 1931.
 A Brief Outline of the Campaign in Mesopotamia
 (Evans), 1926.
 *Official Histories of the War—France, Egypt, Palestine,
 Mesopotamia, Gallipoli.
 *Waziristan, 1919-20 (Watteville).
 *The Third Afghan War (Official), 1926.
 A. & Q. (Lindsell), 1933.
 *The Government of the British Empire (Jenks).
 *A Short History of British Expansion (Williamson),
 1930.
- (v) Books and Articles on Transportation—
 Railways in War. Lieutenant-Colonel E. St. G. Kirke,
 D.S.O., R.E., Army Quarterly, January 1930.
 Strategic Moves by Rail, 1914. Journal R. U. S. I.,
 February and May 1935.
 The Lines of Communication in the Dardanelles.
 Lieutenant-General Sir G. MacMunn. Army Quar-
 terly, April 1930.
 The Lines of Communication in Mesopotamia.
 Lieutenant-General Sir G. MacMunn. Army Quar-
 terly, October 1927.
 History of the R.A.S.C., Vol. II (all campaigns).
 The Supply and Transportation Problem of Future
 Armies. Major B. C. Dening, M.C., R.E., Journal
 U. S. I. India, April 1932.
 The Supply of Mechanised Forces in the Field.
 Journal R. U. S. I., 1929.
 The Board of Trade and the Fighting Services.
 Journal R. U. S. I., 1929.

Railway Organisation of an Army in War. Lieutenant-Colonel Anderson, D.S.O., R.E., Journal R. U. S. I., 1927.

What is Required of a Railway in a Theatre of Operations. Major-General Taylor, R.E., Journal, September 1932.

F. S. P. B. War Office, 1932. Read Sections 36 to 38. Do not memorise detail. Know where to find it.

F. S. P. B. India.

A.H.Q. STAFF COLLEGE COURSE, 1936

The stock of complete sets of papers referred to in the notice published with I.A.O.s, dated 18th August 1936, is exhausted, but copies of the papers detailed below may be had at two annas each, postage free.

<i>Item.</i>	<i>Subject.</i>	<i>Serial No.</i>
Notes for officers attending Course	...	1
Lecture ...	S. & T. No. 2. Concentrations and Detachments	47
Lecture ...	S. & T. No. 3. Surprise and Security	48
Lecture ...	S. & T. No. 4. Communications; Interior and Exterior Lines; Offensive and Defensive Strategy; Fortresses	49
Lecture ...	S. & T. No. 5. Some Thoughts on Morale and Leadership	50
Paper	Transportation	60
Solution	...	61
Lecture ...	"A"—Peace and War	62
Lecture ...	Medical Organisation and the System of Evacuation of Casualties in War	63
Lecture ...	"O" Peace and War	66
Paper	Organisation and Administration (Peace)	67
Solution	...	68
Paper	No. 1. Military Law	74
Paper	No. 2. Military Law	76
Solution	Military Law	77
Paper	Essay No. 1	78
Solution	...	79
Paper	" No. 2	80
Solution	...	81
Paper	" No. 3	82
Solution	...	83
Paper	" No. 4	84
Solution	...	85
Paper	" No. 5	86
Solution	...	87
Paper	" No. 7	90
Solution	...	91
Paper	" No. 8	92
Solution	...	93
Paper	" No. 9	94
Solution	...	95

IX.—HISTORICAL RESEARCH

The U. S. I. is prepared to supply members and units with typewritten copies of old Indian Army List pages, at the rate of Rs. 2 per typewritten page.

The staff of the Institution is always willing to assist units, authors of regimental histories and members by searching the many old military records in the Library on their behalf.

X.—THE MacGREGOR MEMORIAL MEDAL

1. The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major General Sir Charles MacGregor. The medals are awarded for the best military reconnaissances or journeys of exploration of the year.

2. The following awards are made annually in the month of June:

(a) For officers—British or Indian—silver medal.

(b) For soldiers—British or Indian—silver medal with Rs. 100 gratuity.

3. For especially valuable work, a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the Fund deem it desirable. Also the Council may award a special additional silver medal, without gratuity, to a soldier, for especially good work.

4. The award of medals is made by His Excellency the Commander-in-Chief, as Vice-Patron, and the Council of the United Service Institution, who were appointed administrators of the Fund by the MacGregor Memorial Committee.

5. Only officers and soldiers belonging to the Army in India (including those in civil employ) are eligible for the award of the medal.*

6. The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal.†

7. Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but, in the event of two journeys being of equal value, the man who has run the greater risk will be considered to have the greater claim to the reward.

8. When the work of the year has either not been of sufficient value or has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief to deserve it.

*N.B.—The terms "officer" and "soldier" include those serving in the British and Indian armies and their reserves, also those serving in Auxiliary Forces, such as the Indian Auxiliary and Territorial Forces and Corps under Local Governments, Frontier Militia, Levies and Military Police, also all ranks serving in the Royal Air Force, Indian Air Force, Royal Indian Navy and the Indian States Forces.

†Replacements of the ribbon may be obtained on payment from the Secretary, U.S.I., Simla.

GOLD MEDAL PRIZE ESSAY COMPETITION, 1938

The Council has chosen the following subjects for the Gold Medal Prize Essay Competition for 1938:

- (i) "Discuss the dictum that the size of modern armies has rendered strategy wholly subordinate to tactics"
or, as an alternative subject,
- (ii) "A nation's fighting power is not now merely gauged by its armed fighting strength, but also by its productive strength."
Discuss this.

The following are the conditions of the competition:

- (1) The competition is open to all gazetted officers of the Civil Administration, the Royal Navy, Army, Royal Air Force, Auxiliary Forces and Indian States Forces.
- (2) Essays must be typewritten and submitted in triplicate.
- (3) When reference is made to any work, the title of such work is to be quoted.
- (4) Essays are to be strictly anonymous. Each must have a motto, and, enclosed with the essay, there should be sent a sealed envelope with the motto written on the outside and the name of the competitor inside.
- (5) Essays will not be accepted unless received by the Secretary on or before the 30th June 1938.
- (6) Essays will be submitted for adjudication to three judges chosen by the Council. The judges may recommend a money award, not exceeding Rs. 500, either in addition to, or in substitution for, the medal. The decision of the three judges will be submitted to the Council, who will decide whether the medal is to be awarded and whether the essay is to be published.
- (7) The name of the successful candidate will be announced at a Council Meeting to be held in September or October 1938.

- (8) All essays submitted are to become the property of the United Service Institution of India absolutely, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.
- (9) Essays should not exceed 15 pages of the size and style of the Journal, exclusive of any appendices, tables or maps.



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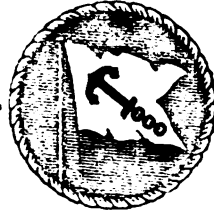
A. CORONATION PORTRAIT



Their Majesties King George VI and Queen Elizabeth

After a Photograph by Dorothy Wilding

With acknowledgments to the "Illustrated London News."



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Their Majesties King George VI and Queen Elizabeth

After a Photograph by Dorothy Wilding

With acknowledgments to the "Illustrated London News."

The Journal

OF THE

United Service Institution of India

Vol. LXVII JULY, 1937 No. 288

The views expressed in this Journal are in no sense official, and the opinions of contributors in their published articles are not necessarily those of the Council of the Institution.

EDITORIAL

It is five years since the last Imperial Conference met at Ottawa, seven years since one met in London. In **The Imperial Conference.** 1930 the depression had barely arrived. The possibility of war was held, on Cabinet authority, to be at least ten years distant. The Conference that year was concerned with the constitutional relations between Great Britain and the Dominions. Its resolutions were cemented by the Statute of Westminster, a statute the implications of which had certainly not been fully thought out at the time and which are only vaguely appreciated to-day. The Ottawa Conference two years later met at the nadir of the depression, when international trade had almost died. Decried by many critics, particularly of the orthodox school of economic theory, it produced nevertheless a great stimulus to inter-Empire trade.

The Conference which met this May had to discuss more serious matters. The agenda were grouped in three categories: foreign affairs and defence, constitutional questions and a miscellany of trade, shipping and airway development. In view of the international situation, it was only natural to expect that the first category would overshadow the remainder. Canada, separated by the Atlantic from the chaos of Europe, influenced by the United States, permeated by American money but never quite sure of American policy, remains keenly interested in European affairs. Australia and New Zealand, even more remote, keep a watchful

eye on the Pacific. South Africa, growing steadily more prosperous, with few problems of her own, has recently been seriously disturbed by events on the African Continent. India, in the midst of great constitutional changes, is involved in a serious frontier campaign. Geographically far apart, each with its own problems, the members of the Commonwealth are agreed on essentials. All are supporters of the collective system of security, within or without the Empire. Yet no one of them has defined what it considers to be its obligations either under the League Covenant or in the event of an imperial war. It is fairly clear that no Dominion interprets either its international or its imperial obligations as involving an automatic duty to resort to war. While the extent to which a Dominion would participate in a British war would rightly be decided by the Dominion legislature at the time, genuine neutrality on the part of a Dominion would be impossible as long as it remained a member of the British Commonwealth. The defence of the Empire is not an easy problem. At present the main burden falls on the United Kingdom. As Mr. Baldwin explained, Great Britain shoulders the burden of defence not only for the security of the British Isles, which are still the heart of the Empire, but also to fulfil Great Britain's responsibility for the guarding of the Empire oversea and as a loyal member of the League. In the long run that burden cannot be supported entirely by forty million people living in a small island. It must be borne by the developed resources in men and material of the whole Commonwealth.

For years imperial co-operation was organised by the Colonial Office. The Statute of Westminster abolished the last vestiges of imperial control. The centralised machinery of the Colonial Office has long since ceased to exist, but nothing has taken its place. It is true that there are imperial committees dealing with shipping, marketing and agriculture, all of them being purely advisory in character. It is true that British High Commissioners in the Dominions and Dominion High Commissioners in London carry out some of the duties of inter-Dominion diplomacy. But there is no imperial secretariat, no permanent body which looks after the interests of the Empire as a whole. Premiers meet every four or five years, but this is not enough. Practical necessity must before long bring into being adequate and permanent means of imperial co-operation. The equality of the various parts of the Empire is evident. Co-operation on a footing of equality would

be more simple if each part were prepared to make a more equal material contribution to the defence of the whole.

* * *

The Khaisora operations, which were described in the January issue of this journal, resulted in the pacification of a large section of the Tori Khel Wazirs and the construction of a fair weather road through the Khaisora valley, but they did not effect the submission of the Haibati Khel section of the Tori Khel or the ejection of the Faqir of Ipi from Tori Khel limits.

When they resumed control on 1st February, the settlement of these outstanding questions became the responsibility of the Political authorities. As regards other tribes who had opposed the Government, the Madda Khel had forfeited one hundred rifles as a punishment and the Mahsuds had declared that they had no interest in Wazir troubles and would not support the Faqir. From 1st February onwards, the situation in Waziristan began to deteriorate, largely as the result of the increasing prestige of the Faqir of Ipi and of the intensive anti-Government propaganda he spread.

The Political authorities tried by political pressure, the threat of further drastic fines and exclusion from specified areas to force the Tori Khel either to control or to eject the Faqir of Ipi. The murders of Captain Keogh and of Captain Beatty frustrated their efforts and other minor hostile acts made the situation in Waziristan so uneasy that military reinforcements had to be sent to Bannu. During March and April, in spite of continued political pressure and air action at the request of the Political authorities on a limited scale, the situation steadily deteriorated. Throughout this period the policy was to avoid action by land forces except for the protection of communications. The Faqir increased his propaganda, other small faqirs started to emulate him; enemy gangs increased; the influx of Afghan tribesmen continued; the Tori Khel as a whole became hostile; the Mahsuds were affected; raids in the Bannu District and attacks on convoys became rife. Naturally enough these incidents were magnified by tribal rumour and made the task of the Political authorities even more difficult. In spite of the move of further reinforcements to Bannu, the situation showed no signs of improvement. On 23rd April the Government decided

that they could no longer withhold action by land forces. The General Officer Commanding in Chief, Northern Command, was accordingly placed in full military and political control of Waziristan and of certain tribal tracts adjoining Bannu and Dera Ismail Khan Districts with instructions to pacify the area in question. Since that date events have been fully described in the Press and it is not proposed to recapitulate them here. Although it is too early as yet to say that the country is entirely pacified, the situation has taken a definite turn for the better. Troops have obtained the upper hand over the tribesmen certain sections of whom have already signified their desire to cease hostilities.

* * * *

There has been a considerable undercurrent of criticism of North-West Frontier Policy. Frontier policy in recent months. We refer to numerous leading articles which have appeared in the Press and in particular to a letter signed "Experientia docet," which appeared in *The Times* in April. The contentions advanced can really be summed up as follows:

"Political administration on the Frontier has proved itself a failure. Trouble will continue until the tribesman is disarmed. Disarmament of turbulent subjects has been carried out in Albania and elsewhere and there is no reason why it should not be carried out in Waziristan."

"Military organization on the Frontier has also been a failure. Troops and commanders are unseasoned and whenever unseasoned troops have been used a disaster has occurred. The military authorities should revert for some years at least to the system of having a special force of all arms which never moves away from the Frontier."

It is not the sphere of this journal to criticise the Frontier policy of the Government of India. The arguments for and against disarmament of the tribes have been thrashed out many times in the past. As regards military policy, we can however speak more fully. The suggestion that the troops in Waziristan are "unseasoned" is incorrect and it is moreover an insinuation which is greatly resented by the units to which it is applied. The troops at present in Waziristan are mainly drawn from the

normal garrison and from the 1st (Rawalpindi) Division of the Northern Command.

The troops of the normal garrison serve continuously under conditions which approximate closely to those of active service. When conditions in Waziristan are normal they are frequently moving over the country. During the period in which they are stationed in the area they are continuously and intensively trained in the intricacies of tribal warfare. It would hardly be possible to produce a force more highly trained, adequately equipped or physically fit to undertake warfare against tribesmen.

The troops of the 1st (Rawalpindi) Division are also highly trained in methods of tribal warfare. This is essential since they may be called upon at any time to undertake operations on the Frontier. They are always in close touch with the latest developments on the Frontier and to assert that they are "unseasoned" is as unfair as it is untrue and misleading.

Taking into consideration the main role of the Army in India, namely, the defence of India from external aggression and the maintenance of internal order, a system of specialized and localized forces is not only uneconomical but is detrimental to the efficiency of the Army as a whole. This was recognised by Lord Kitchener when he was Commander-in-Chief in India. In his reorganization plans he laid down that in order to improve efficiency, localization, whether on the Frontier or elsewhere, must cease, and that all troops should take their turn on the Frontier and thereby gain experience of the tribes and the terrain over which they might be called upon to fight.

This view remains as sound to-day as it was then. The gradual abandonment of the old "closed border" policy and the progressive opening up and development of unadministered tribal territory as exemplified by the military occupation of the Khyber and Waziristan, would have involved a very large increase in the old Frontier Force had it been retained in its original form. This would have still further accentuated the disadvantages attaching to the localization of parts of the army.

Even in the days before Lord Kitchener's organization, the Frontier Force was not numerically strong enough to undertake major operations such as are in progress in Waziristan to-day. The troops composing the expeditionary forces which took the field in Tirah, Swat and Bajaur in 1897 were perforce drawn

from stations all over India and might truthfully have been termed, with no derogation to their fighting value, as unseasoned to frontier warfare, since in those days the majority of units, other than those belonging to the Frontier Force, served for many years continuously in non-Frontier stations. This cannot be said of any units of the Indian Army to-day. Under the present system all infantry units in India take their turn of duty on the Frontier and the intervening periods between tours of Frontier duty are comparatively short. Thus to-day there are few units which have not had recent periods of actual Frontier experience or which do not include in their ranks many individuals who know the tribesmen, their country and their methods of fighting. In addition to this, throughout India, instruction and practice in methods of tribal warfare are part of the normal annual training of all units.

* * * *

The measures recently announced by the Secretary of State for War are designed specifically to ameliorate the Recruiting. lot of the British private soldier. Vocational Training has been transferred from the War Office to the Ministry of Labour, which will absorb the present army centres during the next twelve months. Men will be trained for civil employment on the expiry of their colour service and the numbers offered training will be related to the capacity of industry to absorb men after training. The effect on India of this transfer of responsibility to the Ministry of Labour has still to be worked out. We presume that, as the soldier is to undergo vocational training after leaving the colours, vocational training in India will more or less cease. In any case the effect on Indian revenues is not likely to be great, for vocational training has always been largely financed by private funds.

The unpopular practice of "holding" is to be abolished. We say "practice" because the soldier will still be liable under the Army Act to be retained for an extra year with the colours, while serving outside the United Kingdom. Now that the practice is to be abolished, all those men whose colour service is due to terminate by November 1938 will be sent home during the coming trooping season. For a period of a year or so, therefore, most British units in India will find themselves under establishment. Numerous steps to improve the lot of the soldier during his service are also being taken. There is to be an all-

round improvement in his messing; suppers are to be provided, kitchens modernised, the allowance of fuel for cooking and heating increased. Ration allowances to men not living in barracks or in a mess will be on a more generous scale and small units will have preferential treatment in messing affairs. The recruit is to be given an increased kit allowance and stoppages from his pay for such items as regimental canes, gymnasium shorts and canvas shoes are to be abolished. When sent overseas, he will receive a third suit of khaki drill and a helmet. On the troopship he will get a hammock billet to himself.

That many of these changes will cost India money is inevitable. This is obviously the case as regards the improvement in trooping conditions, the provision of free suppers and the increased scale of tropical clothing. But few officers will deny that these innovations are long overdue. Time alone can show whether, by themselves, they will lead to a sustained improvement in recruiting. Whether they do so or not, they represent one of the biggest advances ever made in the conditions of service of the British soldier.

* * * *

The joint declaration by Britain and France releasing Belgium from her obligations under the Locarno Treaty has been a triumph for Belgian diplomacy.

When Belgium separated from the Netherlands in 1839, her independence was guaranteed by Britain, France, Russia, Prussia and Austria; as a corollary Belgium herself was debarred from forming any defensive alliance. That independence lasted until 1914. It was recognised at Versailles that, the 1839 guarantee having proved ineffectual, it was natural that Belgium should wish to have the right to form defensive alliances. The logical consequence of the war was, in fact, a military convention between Belgium and France; and general staff understandings between the two countries undoubtedly existed until 1925, when the *status quo* in Western Europe was guaranteed at Locarno by Britain, France, Belgium, Germany and Italy. That agreement lasted until the German reoccupation of the Rhineland on 7th March 1936, an event which caused an immediate revival of interest in Belgian defence matters.

While discussions for a new Western pact were proceeding last year, King Leopold anticipated a decision as to Belgium's

future by stating that she had no desire either to be a guarantor or to be guaranteed under any future agreement. Belgian policy was in future to be entirely national; military obligations would be confined to defence of Belgian territory; all that the country desired was to maintain an attitude of strict neutrality. At the time, the announcement came as something of a shock to the chancelleries of Europe.

It must be realised that there is a sharp cleavage of race in Belgium. In the North the population is Flemish, is Teutonic in origin and has a racial dislike of the French. In the South, the population is Walloon and Francophil. Although the Flemish population is by no means wholly fascist, the difference in outlook between the two races was illustrated recently in the struggle between M. Van Zeeland, the Premier, and M. Degrelle, leader of the Rexist party.

King Leopold's policy was probably guided by two considerations: the need to silence Flemish criticism of increased defence measures, which Belgian statesmen recognised as necessary but which would never receive Flemish support if it was suspected that Belgian policy was being subordinated to that of France; and the desire in any case to avoid the entanglements which might occur as a result of the Franco-Soviet Pact. The effective clauses of the Anglo-French declaration, which is the coping stone of King Leopold's policy, are as follows:

"The Governments of the United Kingdom and the French Republic have taken note of the views which the Belgian Government has itself expressed concerning the interests of Belgium, and more particularly:

- (1) the determination expressed publicly and on more than one occasion by the Belgian Government: (a) to defend the frontiers of Belgium with all its forces against any aggression or invasion, and to prevent Belgian territory from being used, for purposes of aggression against another State, as a passage or as a base of operations by land, by sea, or in the air; (b) to organize the defence of Belgium in an efficient manner for this purpose;
- (2) the renewed assurances of the fidelity of Belgium to the Covenant of the League of Nations and to the obligations which it involves for Members of the League.

In consequence, taking into account the determination and assurances mentioned above, the Government of the United Kingdom and the Government of the Republic declare that they consider Belgium to be now released from all obligations towards them resulting from either the Treaty of Locarno or the arrangements drawn up in London on March 19th, 1936, and that they maintain in respect of Belgium the undertakings of assistance which they entered into towards her under the above-mentioned instruments.

The Government of the United Kingdom and the Government of the Republic agree that the release of Belgium from her obligations (as defined above) in no way affects the existing undertakings between the United Kingdom and France."

At first sight it would appear that Belgium has gained all, Britain and France nothing. The integrity of Belgium has always been an essential feature of British policy and the growth of air power has added importance, from a British point of view, to Belgium's position. While the establishment of British air bases in Belgium would be ruled out in war by the fact of Belgian neutrality, it must be remembered that bases in Germany or in Northern France, as the case might be, would probably be equally effective in a Western war. Moreover Belgium has reiterated her adherence to the League, has accepted the general obligations which adherence involves and has undertaken to put her own defences in order. And the declaration, explicit enough in itself, does not impose any obstacle to the wider organization of Western security.

* * * *

Turning to the neutrality of another country, American opinion has for long been opposed to any formal connection with Europe and its diplomatic organizations, such as the League of Nations. Proposals such as those made by Mr. Norman Davis in 1933 for American consultation and for purely negative co-operation in the collective system are no longer practical politics. This attitude we can well understand, even if we consider it unsympathetic. But the recent American Neutrality Bill goes further. Under the new Act, the proclamation by the President that a state of war exists between two foreign states will make it illegal to export arms and ammunition or to lend money to either of them, and it will be illegal

for Americans to travel in ships belonging to a belligerent power. In addition the President is given discretionary authority to forbid the export of any goods whatever to a belligerent country except on a "cash and carry" basis. That is to say that the country in question will have to pay in cash and will have to remove the goods in her own ships. This latter clause was so serious a bone of contention between the Senate and the House of Representatives that a compromise had eventually to be agreed to by which the clause is to be reviewed again in two years time. One has only to reflect on the enormous purchases made by Britain in the American market in 1914 and 1915 to realise the far-reaching results which the bill might have. Of course Great Britain would probably be better situated than other countries as regards ability to carry away American goods in her own ships and probably also as regards her ability to pay for them. On the other hand the Bill, were it to be enforced to the letter, would have peculiarly grave consequences for a country dependent, as Britain is dependent, on overseas supplies. Many believe, however, that the terms of the Act could not be carried out in practice. They question whether any American Government will be able to resist the demand of Kansas farmers to sell their wheat at five or more dollars a bushel. They wonder whether firms, such as United States Steel, forbidden to export American products from the United States, will not set up factories across the Canadian border. Whether these views are right or not is a matter of opinion. The Bill itself is a most forcible expression of American thought.

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We have been asked on more than one occasion recently whether there are any military lessons to be learnt from the fighting in Spain. Major strategical lessons are seldom to be deduced from a civil war in which every province is divided within itself. Such conditions did not of course prevail in America, where the division between Federal and Confederate was fairly clearly cut. As regards tactical lessons, it must be appreciated that, although modern weapons are being used by both sides, they are being used by forces which are not armies in the true sense. Tanks have not proved very effective, but then co-operation between infantry and tanks and between artillery and tanks has certainly been lacking and the service of maintenance on both sides has been poor. More interesting, however,

are reports that the armour of many tanks has proved insufficient against the modern anti-tank gun and that speed alone has not afforded adequate protection.

As regards air fighting, the way in which Madrid has held out against continuous bombing is remarkable and, in Madrid, arrangements for water, fire-fighting appliances and general control of the population have been lacking. On the other hand Guernica, the Basque capital, where incendiary bombs were used, was almost obliterated.

An equally interesting point has been the comparatively slow rate of movement on both sides. The fighting has been open enough; there has been no continuous front such as there was in France, yet the war has not proved to be one of rapid tactical movement. Possibly there has been a dearth of mechanical transport for the supply and movement of troops.

Generally speaking, the war in Spain appears to support the experience of the Great War that the defence still has the upper hand over the attack. It must be admitted, however, that the course of a campaign in progress is not an easy thing to gauge. There is the natural fog of war and that fog is rendered thicker by modern developments, such as propaganda and systematic censorship.

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We alluded in our last number to constitutional difficulties in Japan. In January of this year the Hirota Cabinet resigned owing to the refusal of the Diet to pass the budget. General Ugaki, who was then called on by the Emperor to form a ministry, was unable to do so for the simple reason that he was a man of liberal views. As Minister for War between 1932 and 1935 he had cut down the army by some four divisions. In 1937 he proved unacceptable as Premier to the army chiefs. General Hayashi, who undertook the task, preferred to risk an election rather than submit to the persistent demands for a cut in the defence budget.

At the election the *Minseito* or Liberal Party secured 132 seats, the *Seiyukai* or Conservatives 138, but the greatest advance was made by the Social Mass Party representing Japanese labour. General Hayashi himself obtained only forty seats, most of them held by bureaucrats, out of a Diet of 466 members. To retain office under such conditions would of course be impossible in a

truly democratic country, but it is what General Hayashi attempted to do. He may perhaps have been encouraged by the knowledge that the *Seiyukai* had for long given at least a nominal backing to army leaders; for he proceeded to announce a programme which included measures for the reform of education, the encouragement of industry and the rehabilitation of the agrarian community, which might have meant substantial social advances. But the programme also included measures for the reform of politics and the administration, the repletion of national defence and the renovation of diplomacy which in his hands would certainly have been treated in a concrete manner. As was expected, the programme received a cold reception from the Press, from financial interests and from politicians. Among the latter, Mr. Masazumi Ando, leader of the Conservative Party, went so far as to describe the General as a traitor to constitutional government for attempting to stay in office with so small a minority. General Hayashi was forced to bow before the storm and at the end of May he tendered his resignation to the Emperor. Since then Baron Koynoe's ministry has been formed. A notable feature of the new ministry is the inclusion in the Cabinet of four members of the parliamentary parties which had been most critical of General Hayashi. Baron Koynoe is himself a moderate and his Cabinet has been hailed by the Press as a genuinely national executive. But his task will not be an easy one if he is to combine much needed social reforms with the programme of rearmament on which the army is still insistent and yet avoid the rising prices to which increased budgets are apt to lead.

The ex-Premier, Mr. Hirota, has been appointed Foreign Minister and he is expected to turn his attention to the negotiations, among other things, which have been started in London to place Anglo-Japanese relations on a firmer basis. It is to be hoped that these negotiations will develop into a wider pact of non-aggression among all those nations who have interests in the Pacific.

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A new service journal, the *Indian States Forces Annual*, made its first appearance in April this year. While the **A New Service Journal.** journal is in no sense limited to purely army topics, one of its objects is to disseminate military knowledge among the State officers for whom it is primarily intended. It will also be a

means of chronicling interesting events in the history of Indian States Forces during the previous year. The Indian States Forces number some 50,000 troops of all arms and are maintained by fifty different States. Many of them have magnificent records. If the first number of this magazine is a fair criterion, it is one that should find a place in the mess of every regular unit of the Indian Army.

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At the annual general meeting the Council of the United Service Institution of India made two decisions which will interest members. They decided to increase the premia paid for articles by fifty per cent. A contributor may in future receive Rs. 150 instead of Rs. 100 for his literary efforts. He may of course receive more, if the Council approves it, but this is to be taken as the normal scale of payment for a good article. They decided also to raise the amount awardable by the judges of the Gold Medal Prize Essay competition from Rs. 150 to Rs. 500. Their object in doing so was to bring the award more into line with those given for prize military essays at Home. This latter decision will not, however, take effect until 1938.

**The United
Service
Institution
of India.**

LHASA MISSION, 1936

EXTRACTS FROM DIARY OF EVENTS

31st July (Friday)

Karponang Bungalow. Height 9,500 ft. 10-mile march.

Five members of Mr. B. J. Gould's mission assembled at Gangtok and started their long trek to Gyantse and Lhasa on 31st July. They comprise Mr. B. J. Gould, Political Officer in Sikkim, and his private secretary, Mr. F. Spencer Chapman, Brigadier P. Neame from Eastern Command Headquarters, and Lieuts. E. Y. Nepean and S. G. Dagg, Royal Signals. The Medical Officer, Captain W. S. Morgan, I.M.S., and Mr. H. E. Richardson, the British Trade Agent, Gyantse, will join later at Gyantse.

The organization and despatch of the transport has been a considerable task, involving amongst other things some 50 maunds or 25 pony loads of wireless and signal equipment, food stores for several months and tents, baggage, etc., for half a dozen or so Europeans. Presents necessary for highly placed Tibetan officials are an important consideration, and amongst other things include radio telephone sets, and three cocker spaniel puppies which have to be carried on coolie back.

1st August (Saturday)

Champithang Bungalow. 13,350 ft. 23-mile march.

We reached the picturesque lake of Changu after 3 hours and breakfasted in the bungalow there. This lake at a height of some 12,500 feet was stocked with trout some years ago by Colonel F. M. Bailey but although many were reported to have grown to a large size, they do not appear to have bred at all, and now since a year or two none have been seen and it is to be feared that they have died out.

The prevailing colour just now is yellow—yellow poppies, yellow primulas, ragwort, rock rose, etc. The yellow poppies were most striking and these and the primulas extended right up to the Nathu La at 14,600 feet.

At the top of the Nathu La were the usual prayer flags and pile of stones which the Tibetans put at the crest of every pass, and Sikkimese and Tibetans alike bow low to the prayer flags and add a stone to the pile.



Prayer flags on the road to Lhasa



Passage of Tsangpo

One has often heard of the Sikkim stag or "Shou" which used to exist in the Chumbi Valley. It never did live in Sikkim proper, but probably its horns were first seen by Europeans in Sikkim and thus it got the name. Alas, this magnificent stag is now extinct in Chumbi, the last having been shot about 12 years ago. There was a big herd in 1904 when the Tibet Expedition passed through.

2nd August (Sunday)

Yatung, 9,950 ft. 11 miles.

We had an easy and pleasant march of 11 miles from Champi-thang to Yatung, where we are staying partly in the British Trade Agent's Bungalow and partly in the Dak Bungalow.

At Kargyu we had an official reception by the Lamas, and drank tea with the Head Lama.

On leaving Kargyu we were met by Captain Salomons, 2/7th Rajput Regiment, Officer Commanding Escort at Gyantse, and a number of local officials. Everywhere scarves of silk or muslin are presented to Mr. Gould; they are really used as honorific visiting cards in Tibet, Sikkim, etc.

We change transport here, our Sikkim mules and coolies being sent home, and Tibetan ponies, etc., being taken on.

3rd August (Monday)

Yatung. Halt.

4th August (Tuesday).

Goutsa Bungalow. 12,650 ft. 12 miles.

We passed quite a remarkable collection of buildings in one of which was a big water wheel; this used to be the Tibetan Government Mint, where the paper was made, bank notes printed and also coins struck. It is now out of use; one understands that the Tibetan Government prefer their mint nearer at hand in Lhasa where they can keep an eye on it.

5th August (Wednesday)

Phari Jong Bungalow. 14,300 ft. 16 miles.

We are getting out of the monsoon area, for this morning Neame was woken up in his tent by the sun, a most unusual event at this time of year.

We experienced a most remarkable delusion on the Phari Plain. When we first came in sight of Phari perhaps 4 or 5 miles away we all thought the plain was flooded as there was a large area on both sides of the track for perhaps $\frac{3}{4}$ mile shimmering and

silver, like water at a distance, what was our astonishment on getting closer to see acres and acres of blue forget-me-nots in the barley fields, so thick that there was a "flat wash" of blue over the whole country. One has seen poppies in England, fields of iris in the Pyrenees, etc., but nothing like this.

Phari Dzong is an impressive Fort, with the 15,600 feet Tang La and some snow mountains in the background.

6th August (Thursday)

Tuna. 15,000 ft. 21 miles.

Just outside the Dzong and village we met a herd of yaks carrying wool, evidently coming down from the interior for export to India. A mile out the local celebrities were assembled to present again ceremonial scarves which were afterwards handed back by Gyaltzen.

Some of the Tibetan names are curious, e.g., Phari Dzong means "pig hill fort." The present year is known to them as the "Fire Mouse" year.

The plain east of Tuna affords unlimited good aerodromes and no work is required on improvements.

7th August (Friday)

Dochen. 14,950 ft. 13 miles.

We passed the scene of one of the fights between Gen. Macdonald's troops and the Tibetans in 1904, when the Tibetans tried to stop us by lining a stone wall in the plain astride the path with one flank on a hill. The name of this place is Chhu-mi-Shing-Kung, although Guru is the nearest village and it is by the name of Guru the fight is referred to in the official reports.

Not far from Dochen we met a Tibetan lady on her way to Kalimpong and Calcutta to arrange for the shipment of her husband's luggage; he is one of the leading followers (Tea Serkang by name) of the Tashi Lama.

11th August (Tuesday).

Saugang. 13,000 ft. 15 miles.

For two or three miles we passed through a gorge known as "Red Idol" Gorge from the numerous carved and coloured bas-relief idols usually carved on large isolated rocks, with walls and lintel over to protect them from the weather.

12th August (Wednesday)

Gyantse. 13,120 ft. 14 miles.

Owing to the numerous official receptions, we had to time our march carefully so as to arrive at a spot some three miles from Gyantse at 11 a.m. Chapman went ahead with two cinemas to shoot the receptions.

The etiquette as to meeting officials in order of seniority is strict, juniors first and seniors nearest home. Also the scarf ceremony is governed by strict rules. The lower ranks present scarves (in lieu of visiting cards) and get none in return. The more senior present a scarf and get it handed back to them. The most senior present a scarf and receive back another from the recipient, i.e., a proper exchange of visiting cards.

13th August (Thursday)

Gyantse. (Halted.)

The rest of the morning was spent by Gould in receiving official calls.

All the callers brought presents. They are all given tea, or drinks, and will later receive presents in return.

The Jongpen is the District Magistrate, or Deputy Commissioner, and most Jongs have two, one to watch the step of the other. Sometimes one is a lay official and the other a lama. The name of Eastern or Western only comes from which end of the Jong building they live in.

14th August (Friday)

Gyantse. (Halt.)

Although halted, most of us had a fairly busy day.

We all went to the British Trade Agent's post, where a most interesting race meeting and sports were organized. Local Bhotia ponies raced, including a "pacing race," in which only one out of seven ponies kept its "pace" and won. The others all broke into a canter or gallop. A yak and cow race caused great enthusiasm and the favourite won.

There is unlimited space for an aerodrome in the Gyantse plain, but nowhere usable without a fair amount of work on levelling small irrigation bunds. There is plenty of local labour.

16th August (Sunday)

Gobshi Camp. 13,800 ft. 17½ miles.

The animals we ride are mostly Mongolian-bred ponies brought to Lhasa for sale and thence to Gyantse. They are trained to amble or "pace" on the march to Lhasa by tying their legs together in a certain way.

A fast "ambler" is highly prized by the Tibetan officials and nobles.

17th August (Monday)

Ralung Camp. 14,800 ft. 15½ miles.

18th August (Tuesday)

Dzara Camp. 15,700 ft. 16 miles.

About three miles after leaving Ralung we came to a great flat plain called the Ralung Pangde at a height of 15,200 feet, which would afford an excellent aerodrome. There are a lot of "mouse hare" holes all over this plain but they are too small to endanger an aeroplane landing.

We saw Goa (Tibetan gazelle) grazing on the plain and several flocks of burrhel (blue wild sheep) on the slopes above this valley.

A mile or two below the pass were the remains of old Tibetan fortifications last used in a fight with our troops in 1904. They formerly comprised a continuous loopholed wall right across the valley from one precipice to another, but it is now razed to the ground and only the trace is visible.

19th August (Wednesday)

Nang-Kartse Camp. 14,500 ft. 14 miles.

There is an interesting Gompa (Sumding) three or four miles from here, which has the distinction of having as abbess the only female incarnation in Tibet.

20th August (Thursday)

Pe-de-Jong Camp. 14,500 ft. 16½ miles.

On the road to Lhasa.

21st August (Friday)

Singma-kang-chung. 11,700 ft. 11 miles.

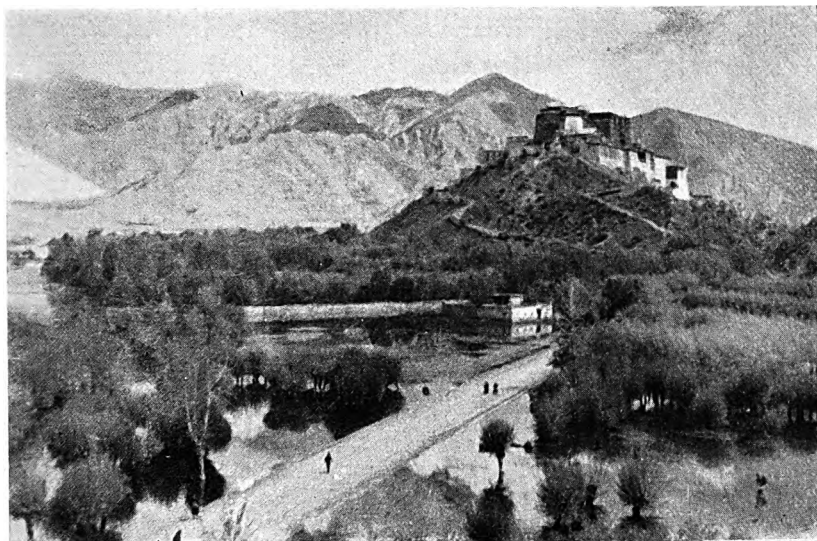
22nd August (Saturday)

Chusul. 11,600 ft. 16 miles.

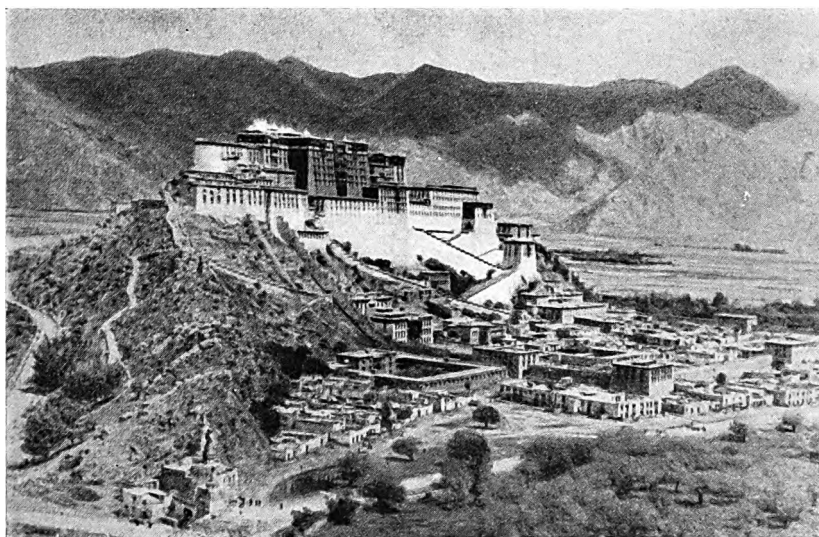
We had quite an interesting march, starting with the passage of the Tsangpo in flood by means of yak skin boats or coracles and ending with a mile of track flooded to a depth of about 2 feet by the river.

Our riding ponies and some of the baggage were ferried across the river, and then marched to Chusul, while the bulk of the baggage went the whole way by river in the coracles.

Each coracle is about 8 feet long and two are lashed together to form a ferry raft. The ponies, two, three or four at a time are pulled into the river with great excitement and splashing on the



Entrance to Lhasa



The Potala, Lhasa

upstream side of a raft which then pushes off. The ponies swim alongside the raft with their heads held up out of the water by their head ropes. The rafts land about half a mile downstream. They are then rowed over again and carried each on one man's back upstream as far as required. They are very buoyant, but very light and are made of six yakskins stretched on a framework of poles. Several ponies broke loose and swam by themselves. Three broke back across the river and swam back to the near shore; unfortunately one of these, exhausted by its efforts, died, presumably of heart failure. It was evidently best to tow only two ponies at a time; when more than this was attempted, trouble usually ensued.

We saw some enormous old walnut, peach and apricot trees. The crops are numerous—potatoes, beans, buckwheat as well as the common barley.

23rd August (Sunday)

Netang. 11,600 feet. 23 miles.

A few miles on we left the Tsangpo valley and entered its tributary the Kyi-chu, and soon we had a distant view of the mountains surrounding Lhasa.

About half way we were met by a ceremonial guide from Lhasa who will accompany us in. He is a high lama, an official of the fifth class in Lhasa, and of the fourth class when outside Lhasa.

Skin boats seem to ply down the fast running Kyi-chu as we saw two lashed together whizz past camp this evening. They will do our days march in a couple of hours!

24th August (Monday)

Lhasa. 11,800 feet. 16 miles.

This has been a most notable day, the first entry into Lhasa for all the British members of the Mission. Lhasa has been in the past, and still is to a great extent, one of the secrets of Central Asia, so far as Europeans are concerned, for the Tibetans still maintain the strictest supervision on all European visitors, and very few are allowed to reach Lhasa.

The most phlegmatic person could hardly avoid a thrill, when marching up the Kyi-chu, at the first sight of the Potala, the palace of the Dalai Lama with its gilded roofs glittering in the bright sunshine of these high altitudes at many miles distance.

We had to time our march so as to reach the various reception places at a fixed hour. We passed the great Drepung Lamasery,

the biggest in Tibet (with 7,000 lamas) at about 10-15 a.m. after coming some 12 miles; and near there were met by Kusho Mondong, a Lama Official, who in 1913 was taken by B. J. Gould, with three other Tibetan boys to England to school, at Rugby. Although over 20 years since he had returned to Tibet, Mondong still spoke good English.

A mile or two further on we were met by representatives of the Tibetan Government, also Monks or Lamas, and were conducted into a park or public garden where ceremonial scarves from Government, Regent, Kasag (Cabinet), etc., were received, and other scarves presented in return. We were then regaled with Tibetan tea and bread. The costumes of the Tibetan officials and their servants were magnificent and appropriate and suited in every way to the surroundings.

The Lama officials wear comparatively dull claret-coloured robes, but with brightly gilded red lacquer hats. They ride smartly caparisoned mules or ponies with gay saddle cloths. Lay officials wear brightly coloured and embroidered Chinese silks. The servants have most marvellous red-feathered and tasselled round-fringed hats like a great lamp-shade!

The whole setting, bright sun, oriental costumes, old world oriental garden and pavilion, with lacquered chairs for us and cushions on the ground for the Tibetans, was remarkable. The old world courtesy, politeness, bowings and compliments of the Tibetans, officials as well as servants, are charming.

After tea we mounted and moved on, always with the most impressive sight of the Potala on its steep hill before us.

We were next received by a guard of honour of a regiment of soldiers and of police, the soldiers under their Depon or General, and the police under the Chief of Police.

We then rode to our residence and camp at Deki Ling-Ka where our official Tibetan guides showed us the rooms in a sort of summer pavilion with a nice garden in which tents are pitched.

All this way we rode facing the imposing Potala, and also in view of the Medical College on the second hill of Lhasa.

The whole valley is extraordinarily fertile, lush and green, with irrigation rivulets everywhere, vegetables, ripening crops and groves of trees. There is a considerable stream of pack animal transport moving to and from Lhasa. Villagers turned out in crowds to watch us. The dirt of the villagers, the frequency of

goitre, and the many pock-marked and in some cases imbecile faces were noticeable.

The climate now is mild and warm, minimum temperature of 55°F. or above, and maximum of a little over 70°F.

We had fine views of the Drepung and Sera Gompas, two of the "big three" of Tibet, whose lamas have great influence on the policy of the country. The third, Ganden Gomba, is a day's march away.

On arrival at Deki Ling-ka, we sat down to what we were told was to be a "light lunch." There were thirteen solid dishes of hors d'œuvres of meat and vegetables of various sorts highly spiced. Then followed in succession three or four *entrées* of hot spices, meats, mushrooms, tripe, etc. Finally came in the usual main course of Tibetan spaghetti in soup, of which one is expected to consume three or more large bowls. To drink there was Tibetan butter tea, and "chang." Chop-sticks were used to eat with.

We arose, gorged, after an hour-and-a-half.

25th August (Tuesday)

Lhasa.

Most of the day was spent in receiving numerous visitors, who made full ceremonious calls in their best silk robes. Each lot of visitors is allotted a time to call, and each is entertained to tea, sweet biscuits, cake and liqueurs. The favourite liqueur is *creme-de-menthe* closely followed by *benedictine*. The servants are kept busy clearing and preparing fresh tea all the morning and afternoon. As it is polite to drink a little tea with each visitor, these continuous snacks are trying to the digestion.

The most magnificent sight was the arrival of three Shapes (Cabinet Ministers) of the Kashag (Cabinet). They wear most beautiful yellow silk robes, and gilded and brocade hats with red silk fringes, and a jewelled knob on top. They are accompanied by beautifully dressed attendants, and servants. The three of them sat cross-legged on a divan in the first floor reception room, and we all sat round the room while Dzasa Norbhu (dressed with equal resplendence in accordance with his Tibetan rank) interpreted.

The day's list of callers is as follows:

Dronyer of Tendong Shape.

The Kashag (Cabinet).

Bhondong Shape.

Tendong Shape.
 Langchungna Shape.
 Depon Jigme (Tering).
 Kusho Chango pa (Ringang).
 Tsarong Dzasa and his wife.
 Kalon Lama Shape.

Shape is cabinet minister (second grade official), Dzasa is third grade, Depon is General.

Some of us went for a ride in the evening round the Potala, whose southern aspect is indeed magnificent and impressive.

27th August (Thursday)

Lhasa.

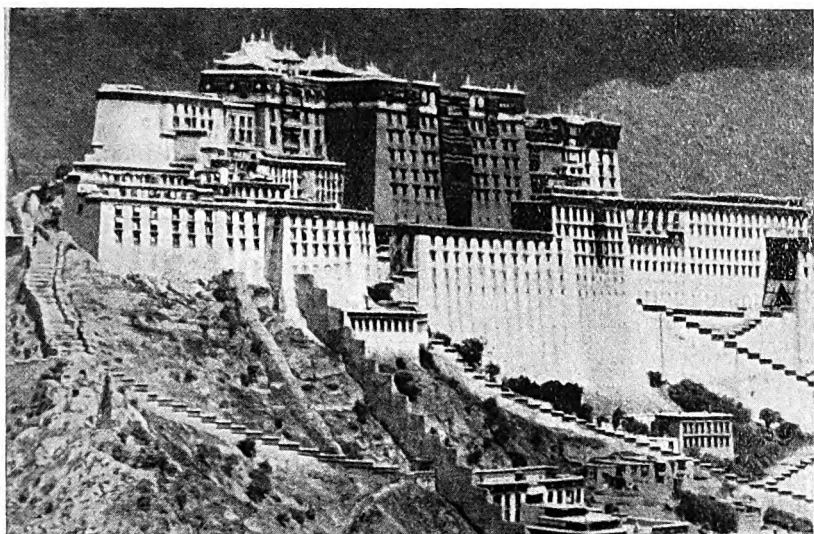
At 10 a.m. we all went in uniform to pay our official call on the Regent and Prime Minister in the Potala.

The ceremony was most impressive, for the buildings although in places dirty, and with low doorways, etc., are of noble design and in a wonderful situation with striking views over the plain round Lhasa. The ceremonial is strict and carefully carried out with officials and attendants to usher us in. First we met the Prime Minister in an ante-room, and then went into the Regent's throne room, small but well decorated. He is not allowed to use the Dalai Lama's apartments.

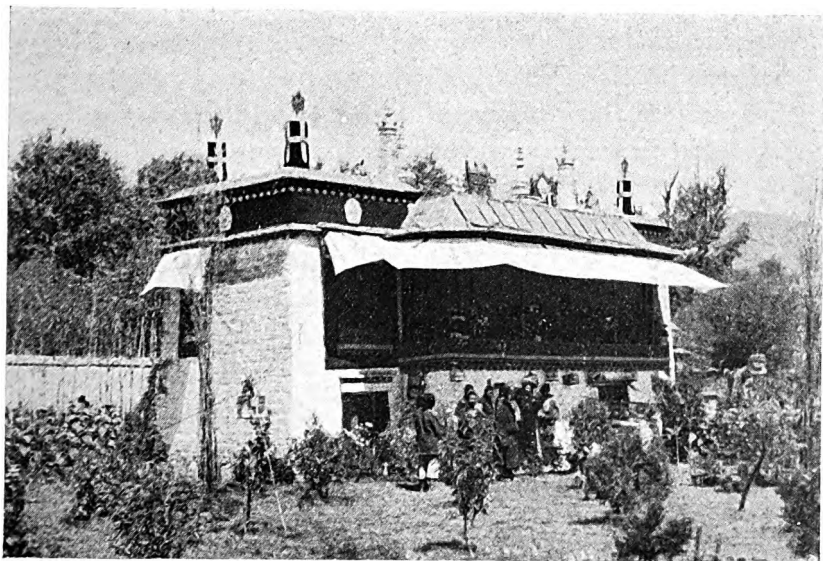
We exchanged scarves, and then, being seated, Tibetan tea, biscuits and dried fruits were handed round by some colossal servants. One of them would indeed have made Carnera look small. They are specially selected for attendance in the Potala on the Dalai Lama, or Regent.

The grading of officials is interesting. Of Shape's (Cabinet rank) there are four in all Tibet. They are 2nd rank officials. Of Dzasa's there are six in Tibet, and two honorary in British India (Laden La and Norbhu Dhondup); they are 3rd rank officials.

It is a notable fact that the Commanders-in-Chief of the army, of whom there are usually two, are fourth rank officials only, i.e., quite low in grade, and that the present two have no military qualifications. They do not apparently ever take the field, and might be regarded more in the light of War Secretaries. Compared with the religious organization of Tibet the army takes a low place, for there is a Lama Shape (Cabinet Minister) and a very high official in addition, Chikyab Khenpo, graded just below Shape who



The Potala, Lhasa



Regent's Summer House, Lhasa

is in charge of all the religious organization of the country, and he has four Grand Secretaries graded as fourth rank officials who are very influential and each of whom is equal in rank to the Commander-in-Chief. In fact one of the religious Grand Secretaries is at present Commander-in-Chief in addition to his religious duties.

28th August (Friday)

Lhasa.

We called this morning on the Regent at his private residence.

The Regent's pavilion is a very pretty little building and charmingly decorated inside. There is a small square garden surrounded by a high wall, with grass lawn and lovely flower beds with a profusion of flowers. The place is full of pet birds and animals, including a talking "Mina," paroquets, a monkey, a leopard cub, a fox cub, pheasants, and numerous dogs.

The young Regent was much more natural and talkative here than in the Potala yesterday. This time the Prime Minister was not present and only a very friendly Dzasa in chief attendance with several minor officials. All were very friendly and natural.

Presents were carried in and given to the Regent, a beautiful silver tea service and tray, rifles, etc. etc.; first and foremost Gould presented the "Kharita" (letter) and photograph from the Viceroy and also three young spaniels as a personal gift from the Viceroy. These were particularly appropriate in view of the Regent's love of animals and pets.

The conversation turned on flowers, the Regent's room and garden containing masses of them. He was very interested when Gould told him that His Majesty the King was keen on flowers, and had specially asked for certain Tibetan wild flowers to be collected by Gould for him.

Neame and Chapman were allowed to take photos and cine of the Regent; amongst his attendants was a giant lama, some 7 feet high, and when Neame snapped him he began to talk and wave his arms. These were not threatening gestures as he was only asking for a copy of the photo.

29th August (Saturday)

Lhasa.

As the result of a long conversation between Neame and Kusho Chapay, who in his younger days had done many years service as Depon in Kham (Eastern Tibet), the following information was

elicited. This was modified in details by a talk with the Lama Commander-in-Chief later in the day, and the combined results are given here. Both officials were capable and clear-headed.

There is a feudal system of recruitment for the Tibetan Army, every official with an estate has to produce so many men. Some estates are specially fee'd or encumbered with providing a large number of soldiers, in fact they are military estates.

Local militia are raised from the villages with their own local armament of prong gun match-locks, etc., for internal security in districts denuded of regular troops.

Kham, i.e., the Eastern Tibetan frontier province, has absorbed all the regular Tibetan forces in recent years, leaving only the Bodyguard of about 600 in Lhasa and 400 armed police and also 300 machine-gunners from 4 or 5 regiments under instruction at Lhasa. There are a few regulars left on the Nepal border, otherwise all the remaining provinces, Gartok, Rudok, etc., depend entirely on local militia with ancient armament for internal security.

The system of promotion is via the ranks, Naik, Havildar, Subadar, to Rupon (major). Appointments to Depon (General), the next rank above Rupon, are all made direct from the nobility without previous experience or training, except for one or two Depons who in past years received military training in India, and also one or two special promotions from Rupon to Depon made by the late Dalai Lama, but none of these exceptions are now serving.

In Eastern Tibet there are now 9 regular regiments, two of 1,000 men with two Depons in charge of each, two of 600 men and the remainder of 500 men with one Depon in command of each, a nominal total of 5,700 regulars.

There are in addition 11 regiments of local militia of 500 each, about 5,500 militia or 10,200 embodied troops in all.

There are in Kham 4 British mountain guns, also some captured Chinese guns, and most of the regiments have one Lewis gun apiece. The mountain guns are in one regiment (or battery) and are allotted as required. The troops are all armed with .303 rifles with plenty of ammunition.

There are 6 or 8 mountain guns in Lhasa with the 300 men under training and one with the field army.

30th August (Sunday)

Lhasa.

Being Sunday Gould had arranged to have a rest from visitors



Tibetan orchestra, Lhasa



The Regent broadcasting

and arranged a visit to Drepung Gomba, the biggest Gomba in Tibet or in the world for that matter. It has a nominal strength of 7,700 lamas, actually about 5,000 "live in" and a certain number more live outside.

It is organized in six colleges each under an abbot or Khenpo. The civil control (administration and discipline) is in the hands of two Shen-ngos who are always preceded when abroad by two "lictors" or mace bearers carrying great metal staves, and perched on top of the staves the Shen-ngos' yellow hats of ceremony. These stave-bearers preceded us and called in stentorian voices at frequent intervals "Pha Gyuk" (clear the way). This was hardly necessary as during our visit the lamas were confined to their cells by order.

The gomba is like a great town on a steeply rising hillside 5 miles out of Lhasa, and the numerous buildings, halls and temples rise perforce in terraces with steep alleys and steps between. The feeding, sanitation, etc., of such a colony must be a big task. The place was very clean compared with Lhasa city or any village, and apparently there is a sewage system taking all latrine refuse by an underground channel to some sort of natural pit or settling tank a mile away; for we were told the sewer did not overflow except in heavy rains.

We were met at the entrance by Shen-ngos and stave-bearers and conducted up the steep hill to the main assembly hall. The smell in the great dark cloistered hall was indescribable, a mixture of incense and rancid butter and the floor was thick with black grease, which we understood was due to the sloppings of the lamas' tea which they drink there.

We drank tea with the abbots and then proceeded on a tour of all the colleges in each of which we had to drink tea, or hot sweetened milk. Some of the big halls are very strikingly decorated with coloured friezes of Buddha's life, or of Tibetan devils and spirits. There are literally hundreds of enormous gilded and jewelled idols in this Gomba, for each hall has twenty or thirty or more. In one there was a striking model of the late Dalai Lama and also of the founder of Drepung said to have flourished 2,000 years ago.

We visited a kitchen and saw enormous copper cauldrons 6 feet across and 3 or 4 feet deep in which soup and tea are made. We also saw the lamas' cubicles in each of which two lamas live.

The roof of the main hall rises in striking steep pitched oriental curves and is gilded. In some cases these roofs are actually overlaid with gold leaf.

We then proceeded to the "Nachung" or temple of the Great Oracle of Tibet, a mile from Drepung Gompa, where we had a picnic lunch under a grove of trees at which we entertained our Tibetan guides and our own clerks, who had accompanied us to Drepung, much to their delight.

After lunch we all went round the Oracle's temple guided by a very intelligent Urdu-speaking lama.

We admired the old armour and swords hung round the cloisters, the solid gold butter lamps at the shrines, and the gold leaf pagoda-like roof.

The lamas' living houses at this temple are very superior and clean looking.

ATTACK ON THE CONVOY AT SHAHUR TANGI ON THE 9TH APRIL 1937

(See Sketch Map 1 inch to 1 mile, attached.)

For some time prior to the 9th April conditions in South Waziristan had been very unsettled but the general situation regarding the safety of the main Jandola-Razmak and Jandola-Wana roads was in no way comparable to that existing in North Waziristan. Thus, with the agreement of the political authorities, escorted convoys had been running between Manzai and Razmak and Manzai and Wana without incident. During the passage of a previous Manzai-Wana convoy the presence of suspicious characters in the Shahur Tangi area was noted and reported and formed the subject of a special reference to the political authorities. The latter, however, were of opinion that convoys to Wana could continue without undue risk. It was in these circumstances that the convoy was ordered to leave Manzai for Wana on the morning of the 9th April.

It must be understood that in South Waziristan between Manzai and Wana no troops were available for road protection which therefore devolved upon Scouts and *Khassadars*. In all convoys the escort consisted of one section of armoured cars, a detachment of fifty infantry with one officer and two light machine-guns and a detachment of sappers and miners. Continuous air reconnaissance over each convoy was provided, the pilots being instructed to give warning of road blocks and afford close support if required.

The Start of the Convoy from Manzai

The convoy for Wana left Manzai at 6-10 a.m. on the 9th of April. It consisted of forty-five lorries, two or three private cars and one ambulance. Included in the convoy, which was carrying supplies, leave details and officers proceeding to Wana, were some lorries belonging to the civilian Bagai Transport Company. It was escorted by four armoured cars of the 8th Light Tank Company distributed one ahead, two spaced along and one in the rear of the convoy. An infantry escort of one Indian officer, fifty-eight men and three light machine-guns of the 4th Battalion, 16th Punjab Regiment, under the command of Major H. W. D. Palmer,

3rd Battalion, 16th Punjab Regiment, was carried in lorries distributed at intervals along the convoy. A sapper and miner demolition party of fourteen men travelled in the fifth lorry just behind the leading infantry escort, and one aircraft carried out a continuous watch over the area in which the convoy was moving.

Subsequent reports show that, prior to the 9th April, a gang of Mahsuds arrived by night from the Shaktu *via* Sorarogha and occupied the Shahur Tangi. Their presence in the neighbourhood was not reported by either *Maliks* or *Khassadars*, who were supposed to be loyal and protecting the defile. Actually the bulk of the *Khassadars* were not carrying out their duties and were not in position on the 9th April. Patrols of Scouts were working respectively from Jandola towards Kotkai and from Sarwekai eastwards towards Sura Ghar. Information available at the time showed that these areas were potentially more dangerous than the Shahur Tangi area. Thus on the morning of the 9th April the Shahur Tangi itself was not patrolled by Scouts.

The First Attack

The convoy proceeded without incident *via* Jandola and Chagmalai Post to the Shahur Tangi. At 7.45 a.m. when the head reached milestone 8.4, near the western exit of the defile, firing broke out simultaneously along the whole length of the convoy, being most intense against the leading half of it.

In the defile the road runs along a steep cliff side and lorries can only turn in a few places. The leading armoured car commander therefore ordered the three leading lorries, which were still moving, to follow him to Splitoi, whence he despatched them to Sarwekai Scouts Post, and returned himself to the fight. For the first fifteen minutes of the action the enemy fire was intense and sustained. Several lorry drivers were killed at the outset and their lorries slewed across the road preventing any movement of armoured cars along the convoy. The enemy were located behind rocks and in catchment drains on both sides of the precipitous defile. Subsequent information gives their initial strength as from sixty to eighty, increased later to some two hundred to three hundred.

When the attack began it so happened that all four armoured cars were in sight of each other on the winding road and they at once engaged the enemy with machine-guns. Though many of the casualties occurred in the lorries at the start of the attack,

the infantry escort at once debussed and came into action from behind boulders, from *nalas* and from the road side. In spite of casualties they fought back with the greatest gallantry, inflicting casualties on the enemy and checking at point blank range all enemy attempts to overrun the convoy. In this they were assisted by the armoured cars which, although unable to move up and down the convoy, used their machine-guns with great effect. The infantry escort in the leading lorries under Subedar Badshah Gul, 4th Battalion, 16th Punjab Regiment, established a piquet to the north of the road. This piquet was maintained all day and was of the greatest value. Efforts were made on several occasions to get the lorries under weigh, but casualties immediately resulted. After the first quarter of an hour the enemy resorted to intense and accurate sniping and no movement was possible in the vicinity of the convoy.

Subsequent Course of the Action

Meanwhile the news of the attack had reached Waziristan District Headquarters, Sarwekai and Jandola, and the following reinforcements were despatched to the scene of action:

From Manzai (in lorries)—

One section 8th Light Tank Company.

One Company 4/16th Punjab Regiment.

One Platoon, Support Company 4/16th Punjab Regiment. Followed later by a composite company 4/16th Punjab Regiment.

From Jandola—

Three platoons South Waziristan Scouts.

From Wana (in lorries)—

Three platoons South Waziristan Scouts, which reached Splitoi at 4-30 p.m.

From Sarwekai—

One section 8th Light Tank Company.

One mounted infantry and four infantry platoons South Waziristan Scouts.

The Scouts were out on patrol eastwards from Sarwekai and when the news reached them were at Sura Ghar.

Mr. Lewis, Assistant Political Agent, Sarwekai, organised a party of *Khassadars* at Splitoi.

From Miranshah—

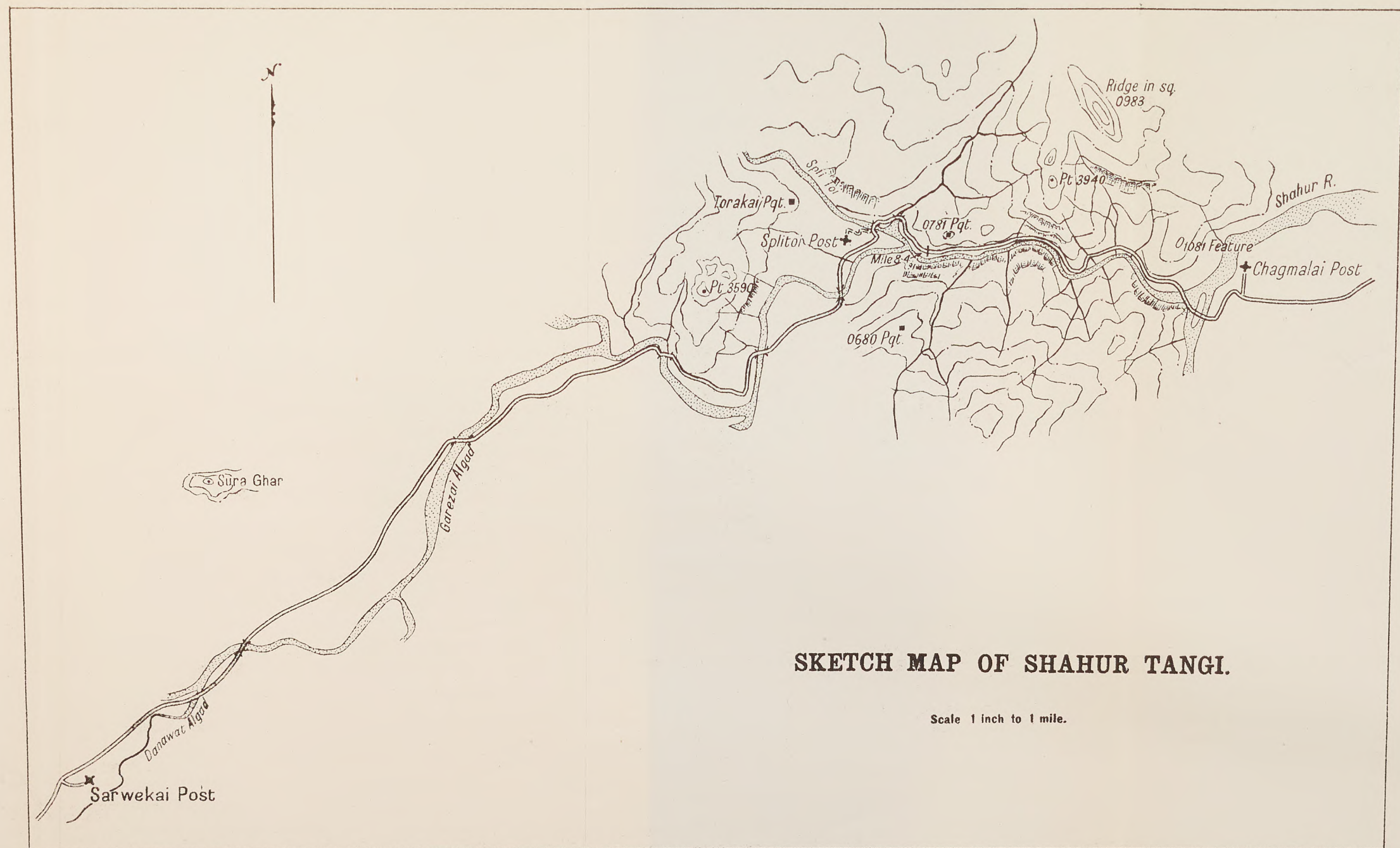
A second aircraft for close support.

The reinforcements from Manzai and Jandola reached Chagmalai about 10-30 a.m. Major Skrine, South Waziristan Scouts, who was in command, hearing it was impossible to extricate the convoy decided to seize the high ground north of the defile, his object being to prevent enemy reinforcements from coming down to the scene of the fight from the north, and to join hands with reinforcements from Sarwekai.

The advance from Chagmalai met with only slight opposition until it reached the 0983 ridge, but the subsequent advance towards point 3940 drew heavy fire and opposition grew stronger, particularly on the right flank where considerable numbers of the enemy were seen streaming down from the north.

It was now 4 p.m. and as there was no sign of any advance from Splitoi and as the evacuation of casualties was a formidable matter in such difficult country, Major Moll, 4/16th Punjab Regiment, who was now in command, decided to withdraw. The withdrawal was very closely followed up, but Chagmalai was reached at 6.45 p.m., and, with the exception of one Scout missing, all casualties were evacuated. Meanwhile three more platoons of South Waziristan Scouts arrived from Sararogha. These established a piquet for the night on hill 1081.

To turn now to events at the western end of the defile. The Scouts from Sura Ghar reached Splitoi at midday, seized point 3590 and then advancing along the ridge took Torikai piquet from which they were able to fire on the enemy in the Splitoi stream. Mr. Lowis with his party of *Khassadars* and some Scouts seized the hills 0781 and 0680, of which the former was held by the enemy. Meanwhile the enemy threatened to advance from the ridge north-east of Splitoi. They were driven off by Scouts and prevented from infiltrating down the stream. These attacks had the effect of weakening the enemy's position in the Shahur Tangi, and with the assistance of the armoured cars from Sarwekai it was found possible to pass some fifteen or twenty lorries of the convoy through to Splitoi and thence on to Sarwekai. At about 4-30 p.m. three platoons of Scouts arrived from Wana, and were ordered to seize point 3940 which they did in spite of considerable opposition. Lieutenant Robertson, who was in command of this party, was



SKETCH MAP OF SHAHUR TANGI.

Scale 1 inch to 1 mile.

wounded, but the hill was held by the Scouts throughout the night.

As dusk came on the enemy made attempts to rush the convoy, but were beaten off by the fire of the armoured cars and the survivors of the infantry escort. After dark the strength of the latter was insufficient to protect the convoy throughout its length. They were collected in small parties in the vicinity of the armoured cars, two of which were situated about the middle of the convoy, and sangars were built. These measures were successful in keeping the enemy from approaching the convoy as a whole though they were able to reach a few lorries which were defiladed from the fire of the defenders. In addition, Scouts patrols from Splitoi, supported by armoured cars, worked along the convoy, and helped to evacuate casualties.

Throughout the day the Royal Air Force co-operated closely, one sortie on each side of the road being continuously in the air. Their action, and in particular their machine-gun fire, was invaluable in keeping down enemy fire.

By morning the enemy had disappeared and the work of extricating the remaining vehicles was able to proceed unhindered. The Tangi was clear of the lorries by 2 p.m. when regular troops returned to Manzai and the Scouts having established garrisons at Chagmalai and Splitoi, to Jandola and Sarwekai.

THE PRINCIPLES OF MOBILIZATION

BY MAJOR A.V. ANDERSON, M.B.E., R.E.

"Mobilization is the process by which an armed force passes from a peace to a war footing."

"The object of mobilization schemes is to ensure that, so far as can be foreseen, every detail connected with the change from a peace to a war footing has been thought out in peace."

The above two extracts from Mobilization Regulations, India, 1929, are well known and most officers have at least a working knowledge of the process of mobilization as it affects their own units and of the contents of their unit mobilization schemes. Mobilization and mobilization schemes are, however, concerned so closely with matters of detail that the details are liable to mask principles and to make it difficult to distinguish between what is essential and what is merely desirable. This is said without intending to detract in any way from the importance of details and, to avoid misunderstandings, it may be as well to assert here that attention to detail must always remain a necessary element in the preparation of all mobilization plans. Mobilization is, however, a complex process and it is all the more necessary that principles should not be obscured.

Instead of attempting to define these principles at this stage, it is proposed first to examine the process of mobilization more closely with particular reference to the definition of mobilization which stands above.

In the first place it is clear that the process of mobilization must depend upon the state of preparedness at which the army and the units which compose it are maintained in peace. Certain units exist in peace at a higher establishment than they require in war. Others exist only in cadre form, while others which are required in war do not exist in peace at all. All administrative machinery, such as training establishments, depots, record offices, etc., has to be considerably expanded and in the case of new units and services this administrative machinery has to be built up from the beginning. Speaking generally as regards the army as a whole and as regards new and "cadre" units, mobilization is a process of growth; as regards most combatant units, however, it is something entirely different.

In peace most combatant units have a higher establishment than in war and all are governed by a very complex system of administration, with the result that in their case mobilization is more a process of discarding men, stores, equipment, etc., than of adding to peace holdings. Surplus personnel are sent to the depot; such mobilization equipment as is taken into use is more than offset by the training and station stores handed over; all ranks are restricted to war scales of clothing and surplus clothing and baggage is left behind; messes and institutes are closed and unit ledgers and accounts are finally balanced. The mobilized unit is like a battleship stripped for action; it has all its requirements for war but everything else has gone overboard.

It is also clear that the process of mobilization will vary in accordance with the role allotted to the unit in war. Certain combatant units, internal security units for instance, will remain outside the theatre of operations and although their mobilization must follow the general lines of that of the rest of the army it is obvious that the "stripped for action" condition will not always be suitable.

There is, however, another and even more important point of difference between a mobilized unit which enters the theatre of operations and one which does not. In the former case the complete war outfit of the unit is written off ledger charge and thenceforward equipment, rations, clothing, etc., are demanded on an "as required" basis. It is clearly impossible, for many reasons, to extend this simplification of procedure to units which remain outside the theatre of operations and in their case the process of mobilization must be modified.

A further point which emerges from an examination of the definition is that the process of mobilization is also liable to variation on account of the fact that the expression "war footing" need not necessarily always mean the same thing even for the same unit. A war with a major military power will require a higher standard of organization, both on the part of units engaged and on the part of the force as a whole, than might be permissible for a minor campaign on the North-West Frontier or for a rising such as the Burma Rebellion of 1931. It is most desirable in the interests of economy that no higher standard of organization should be adopted than is necessary in each particular case, although the standard must be sufficient to meet the occasion and

must be such as can easily be converted to a higher standard should the operations develop unexpectedly.

Without proceeding further on these lines, it appears to have been established that the process of mobilization is one of considerable variety and the next step towards formulating principles is to find some factor common to each of the many varieties which the process of mobilization may assume. It seems obvious that this common factor cannot take the form of some particular action whose fulfilment has the effect of marking the completion of mobilization and, as we are looking for principles, the clue can hardly be expected to lie in some matter of detail.

There is, however, one factor common to all varieties of the process in that all result in the unit, etc., in question passing to a war footing. This expression "war footing," as has been shown, has no fixed meaning but it implies that the unit of force is ready to undertake the task allotted to it in war. Here, it is suggested, is our first principle:

"A unit or force may be considered as having passed to a war footing, or to have completed mobilization, when it is finally in a position to carry out efficiently its war role."

The above statement affords a fresh basis for enquiry and it is now proposed to consider the conditions which affect the capacity of a force to carry out its role in war. This capacity is dependent upon many things, such as standards of training, physical fitness, suitability and sufficiency of equipment and armament, etc., but for our present purposes the possession of all these essentials must be assumed, the justification for this assumption being that if these are not present in peace the order to mobilize will not in itself produce them. There are, however, two other conditions which must be satisfied before a unit or force can be considered as having passed to a war footing and these two conditions are intimately affected by the process of mobilization itself.

These conditions are that the unit or force must be suitably organized for its task and must also have adopted a suitable system of administration. The importance of the first of these two conditions need not be laboured; as regards the second it need only be pointed out that if administration breaks down the machine will stop and if administrative methods are unsuitable effort and energy will be diverted from more active channels. It is suggested therefore that we can now formulate a second principle:

"A unit or force is in a position to carry out efficiently its war role when it has adopted an organization and a system of administration suitable to that role."

These two principles read together make it clear that the process of mobilization is, in essentials, one of change in peace organization and peace administration. This fact contains the explanation of why the process is subject to such variation and it is worthwhile, even at the risk of some minor repetition, to illustrate this by a few simple examples. These examples could be multiplied almost indefinitely by considering organization and administration in their broader aspects, but for the sake of brevity we will confine ourselves to the case of combatant units.

As regards organization, a combatant unit will normally adopt for war its war establishment and will normally be brought up to that establishment before it takes the field. In certain cases, however, the necessity for speed may make it desirable to concentrate the army before units can be brought up to their war establishments and modified establishments, sufficient for the immediate task in hand, may be ordered for the initial stages of even a major campaign. For a minor campaign units may be required to retain their peace establishments and to operate at any strength varying from the minimum practicable up to approximate peace strengths, depending upon the nature of the campaign. On other occasions it may be necessary to lay down special establishments to meet special conditions. It is clear that the process of mobilization will vary in each different case.

As regards administration, the system to be adopted will also vary according to the role of the unit and the nature of the campaign in which it is engaged, subject, however, to one cardinal rule. In all cases the peace system of administration must be simplified as far as the war role of the unit demands and as far as the necessity for economy and for control allows. Simplification of administrative procedure in units usually means the provision of other agencies to relieve them of certain duties, *e.g.*, 2nd Echelon, and a consequent elaboration of the process of mobilization from the point of view of the army. Confining ourselves, however, to the case of combatant units three aspects of administration may be quoted as examples of variations in procedure:

- (a) The system of pay accounting. The war system can be adopted on as wide a basis as is desirable, regardless of

the location of the unit or individual. In both peace and war systems equivalent safeguards are observed, cash being held on charge and receipts being given and taken as rigidly in war as in peace.

- (b) The system of accounting for equipment, clothing, rations, etc. The war system can only be applied sparingly and will normally be confined to units which enter the theatre of operations. Under the war system there are practically no safeguards, expended articles are not accounted for and nothing is held on charge.
- (c) The system of unit and individual records. The war system must usually of necessity be applied to units entering the theatre of operations and the peace system will usually be retained by units remaining outside it as a matter of convenience. Both cases may, however, be subject to exceptions.

It is now proposed to return again to the definition of mobilization which we have been examining, but this time our examination will be more critical in the light of the two principles which have been formulated. We have seen what the process of mobilization really consists of and we know that changes in organization and changes in administrative methods are of frequent occurrence in the army as matters of normal evolution. Some reorganization of units or services is continually taking place and although administrative changes are less obtrusive, much alteration has been effected in army administration during the past ten or twenty years. We are therefore led to suspect that the definition, although it may be true and may be suitably worded for the context from which we have taken it, does not contain the whole truth and that it requires elaboration as follows if it is to present a completely accurate picture: "An armed force passes from a peace to a war footing by a process which normally involves changes in its organization and in the system of administration by which it is governed. This process will vary according to the degree of preparedness at which the force is maintained in peace and the standard of organization required for the war in question. The process may, but need not necessarily, be termed mobilization."

If, as is suggested, it is not always necessary to employ the term "mobilization," it may be asked whether there are ever any advantages to be obtained from its use and, if not, whether there

is any point in retaining it in our military vocabulary. The word "mobilization" has many sinister associations; it is one which any Government will desire to avoid during a period of strained relations and possibly even after hostilities have commenced; its use may invest a comparatively minor operation with undesirable importance. It is in short a word whose use is becoming distinctly unfashionable.

It is, however, a descriptive word which has a definite value if properly employed and if its use were to be discontinued it would be necessary to introduce some other word in its place. Mobilization regulations, mobilization plans and mobilization schemes are still necessary, by whatever names they are to be called, to ensure that every detail connected with the change from a peace to a war footing has been thought out in peace. These regulations, plans and schemes must, however, of necessity prepare for the worst possible case and the prejudice against the term "mobilization" has arisen from this fact and from the mistaken belief that these plans and schemes can only be put into operation by the order to mobilize and that, if they have to be put into operation, they must be implemented fully.

As we have seen, however, we must be prepared to give effect to the process of mobilization in many varied forms; our regulations may have to be applied partially or piecemeal; our schemes will almost certainly have to be considerably modified to meet actual requirements; the word "mobilize," although it may be useful as a code-word for the worst possible case, cannot obviously be applied to each of the many varieties of process involved and its use may even be definitely forbidden.

This situation presents no difficulty provided that it has been appreciated and prepared for beforehand and it merely entails the various stages of mobilization being ordered as they become necessary and to the extent which the needs of the moment demand. The basic orders required can be issued in peace in the form of regulations, dissociated entirely from mobilization, and modifications and additions can be issued very simply in the form of instructions as the occasion arises. Regulations and instructions have, however, to be applied and this can only be done most intelligently when all concerned are fully acquainted with the principles upon which they are based. It is hoped that in this article some progress has been achieved towards making these principles clear.

SOME REFLECTIONS ON THE COST OF INDIAN DEFENCE.

By "SPUR"

Critics of Indian military policy usually adopt the attitude of detached opponents who believe that the country is made to pay large sums for humouring the whims of its bellicose advisers. Their arguments were ably summarised by the late Commander-in-Chief in the Council of State in 1931 as follows:

- (a) Military expenditure is, according to standard economic theory, unproductive and contributes nothing to the wealth and welfare of the country. India simply cannot afford the sums she now pays for defence.
- (b) External perils are not really serious; for the chances of attack have been reduced since the League of Nations came into being. And in any case the army is used less for the service of India than for the furtherance of British interests.

In Europe the essential facts of defence are known to educated persons. England knows what the loss of sea power would mean to her; France what failure to defend her land frontiers might entail. In India such facts are not widely known. To cite the costs of defence in other countries and then to point to the poverty of India and the relatively high cost of Indian defence is not by itself enough. The cost of defending India depends on her geography, the composition of her peoples and her relationship to world politics.

One may lay it down as a principle that it is the duty of the statesman to formulate policy and of the soldier to see that the means with which that policy is to be carried out are ready at hand and efficient. While the soldier should take notice of the political and economic conditions which affect the development of a country, he must never be unduly influenced by them. He has his case to state; it is for the statesman to hold the balance between military and civil demands. And if the statesman cannot find the money for those armed forces which the soldier assures him are necessary to carry out his policy, he has in reality two courses open to him. He can rid himself of the soldier and seek

other advisers; or he can modify his policy. This article represents then a soldier's reflections on the size of India's defence forces in relation to current political and economic conditions.

It would be difficult to find any period since the war when the international scene has been more disturbed. In Europe the League of Nations appears helpless. Three great nations have openly flouted it. Disarmament is a dead letter. Every Western nation, almost every nation in the world, is bent on increasing and modernising its armed forces for the struggle it fears will come. "Guns not butter" are the unfortunate orders of the day.

In Spain a civil war, barely confined to national territory, shows no signs of early termination. Moving further East, there has been a rebellion in Palestine, a *coup d'état* in Iraq. Throughout Arab countries there is a feeling of unrest. Even the African Continent has been vaguely disturbed by the reduction of one of her few remaining independent states.

In the Far East, Japan is well launched on a career of military and territorial expansion. Her Press no longer refers openly, it is true, to the possibilities of Japanese domination of Asia but it has done so on more than one occasion in the past.

Closer to home India is experiencing a disturbance on her frontier as serious as any she has seen for a decade.

Throughout the world there is a clash of ideas. Fascism, Communism, Naziism, Syndicalism; do any of these hold out hopes of lasting peace?

But economy in defence depends not only on world peace but also on internal calm. When unrest is rife, accentuated by racial hate and by terrorism, the army finds it hard to keep expenditure within bounds. The size of the Army in India is referred to later in this article. Here it may be remarked that India has, since the war, been forced to retain on an average one British and nine Indian cavalry regiments, twenty-eight British and twenty-five Indian battalions, and five armoured car companies for internal security purposes alone. The figures speak for themselves. There is admittedly a school of thought which maintains that the problem of internal security will fade as alien government is replaced by national government. This is a contention which the future alone can prove to be right or wrong and the writer is dealing with the present. Of course the millenium may arrive, but the millenium is after all an abstract conception on which

no government, alien or otherwise, can safely rely while labour unrest is present and communism, terrorism and communalism remain factors to be reckoned with. It will indeed be an exceptional Indian minister who is able in the near future to steer his province through times of unrest without being grateful for the knowledge that military aid is available in the background, even if he does not have recourse to it.

Moreover, political unrest affects Indian finances in another way. Referring to the depression, Sir George Schuster remarked on the 28th February 1931:

"So far as India's external trade is concerned, the depression may be put down to world causes. But internally the Civil Disobedience Campaign has weakened confidence in India as a field for investment, both at home and abroad. This has led to a steady decline in the price of securities, to a lack of credit to traders and of capital for new enterprise; and to an export of capital from this country."

In support of Sir George's statement, it is of interest to note that during the period of which he was speaking the price of British War Loan rose from 102 to 104, while the price of sterling $3\frac{1}{2}$ per cent India stock dropped from 65 $\frac{1}{2}$ to 59.

Turning from the political to the economic sphere, we find admittedly a more hopeful picture. Yet it is still a picture of light and shadow.

The resources of India in man power and material are great. With a population of over 300 millions, she has a vast productive capacity in coal, manganese, cotton, sugar, jute and numerous other commodities. Her foodstuffs are adequate. To judge by the amount of bullion exported in recent years, her accumulated treasure is immense. Yet by western standards she is a poor country; for her wealth is not developed. It is surprising how few of the great industrial concerns of India have been created by Indian organization. Except for Tata's and the mills of Bombay where the population is essentially cosmopolitan, few were until recent times in the hands of Indians. The jute industry is British; the works for the production of machine tools at Barrackpore are not Indian works; they were erected by Messrs. Herbert & Co. Indian industrial apathy is well illustrated in the leather manufacturing industry. The factory is as uncongenial to the Indian

labourer as is the industrial system to the Indian university graduate. It sounds a paradox to say that in a country with a population of 300 millions the demand for factory labour is often in excess of supply. Yet the Report on the condition of trade in India at the close of the war stated:

“The most serious defect of Indian labour to-day is its intermittency. Ten per cent. is a low estimate of the number of absentees at any one time. In the harvest season staffs are sometimes reduced by forty per cent” and there is no reason to think that the attitude of Indian labour has undergone a fundamental change in the last twenty years. Again the habits of the people of India would not support a banking system such as we understand it in the West. In some eighteen towns possessing a population of over 30,000 there are no banks at all. Unfortunately the habit of investment is still undeveloped. Its place is taken by hoarding and by conversion of bullion into jewellery. Those who have studied the subject are agreed that a wonderful future awaits the country the moment investment becomes anything like as general as it is in England. In making these remarks the writer does not urge that India should attempt to change herself from an agricultural into an industrial country. That would indeed be a sorry policy, for India's strength lies in her land and her peasantry. But the facts cannot be burked. One has only to read the speeches of Indians such as Mr. C. R. Das and Mr. Gandhi to realise that Western industrialism and Western efficiency are regarded by a large section of educated opinion not only with indifference, but with aversion.

Financially, however, India is in a more advantageous position. The total debt of the Government of India on 31st March 1935 was 1,236 crores, say a little over £900 millions sterling; not a large amount for a country of her size and possibilities. Of that debt it was estimated that 981 crores were directly productive in railways, telegraphs, irrigation and commercial undertakings; 51 crores were held in cash and bullion on treasury account. Some 20 per cent. of the whole represented unproductive expenditure. By comparison the national debt in Great Britain on the same date fell just short of eight thousand million pounds; the major part being due to unproductive expenditure.

At the moment economic prospects are reasonably encouraging.

High tariffs, a pronounced feature of post-war years, and uncertainty in the foreign exchanges have, it is true, entailed a great shrinkage in international trade.

Against this, thanks to the conservative management of her affairs, India has weathered the storm well. The balance of trade is still in her favour and internal trade has already recovered substantially.

A review of this economic background leads one to think that a big factor in reducing the apparent oppressiveness of defence costs must be the development of Indian industry and agriculture and the creation of a habit of investment. Investment is after all nothing more than the employment of accumulated wealth to a useful purpose, but the habit is one that must be encouraged if India is to grow more wealthy. At present much of the finer technical equipment of the Defence Forces has to be imported. The lack of facilities for obtaining various articles from the trade compels the army either to manufacture itself or to keep up large stocks of spares. The army provides that security which is essential to social and economic development. It cannot provide, and nor can any government department provide, the will to improve. If the educated Indian, able as we all know him to be, would turn to trade, military burdens would soon disappear.

Before examining the size and cost of the Indian Defence Forces in any detail, certain other broad tendencies of Indian finance require notice. By 1859 the long-drawn-out operations of the Mutiny had produced a huge deficit. At the request of Lord Canning, Mr. Laing, a Treasury official, was sent out to India. He filled up the deficit by new taxes, among them an income-tax. In his extensive report he stated that he had come to the conclusion that the revenues of India were elastic and buoyant to an extraordinary degree. In railways, canals and other public works, India had assets of great capital value and there was no reason to be uneasy about the financial stability of the country. Writing some years after the war, the Oxford Historian records:

"That unfortunately the Indian Government is prone to panic on the subject and far too ready to resolve on short-sighted petty economies whenever it finds itself slightly embarrassed. Such a panic occurred in 1911 without any substantial justification."

Admittedly it is not only in times of financial stress that the Government of India has been hard put to it to find revenue. The sums that have been spent on "nation-building" services have never been large, but then the revenues of the country are not large. On the other hand a marked feature of Indian finance—and soldiers will agree that it is a right one—has been to allot a larger proportion of the slowly growing revenue to civil needs. The incidence of military and civil expenditure over the last three decades is shown below:

	1913-14	1922-23	1933-34
Total revenues			
of India ...	87	219	174 crores.
Defence ...	29	63	44½ "
Other expenditure ...	58	156	129½ "
Defence per cent. ...	33½	29	26 "

To-day the proportion of revenue devoted to the armed forces is substantially less than it was in 1923 and of course much less than it was before the war.

In 1923 it was felt that the ratio of military to total expenditure was excessively high and the Inchcape Committee, which sat for the express purpose decided to enforce economy in two ways, by a decrease in actual fighting strength and by a relatively greater reduction in the provision for maintaining that fighting strength. In their enthusiasm for economy at all costs it is possible that they overstepped the mark. Certainly it was not long before the balance between fighting strength and maintenance services essential to the production of an efficient army was seriously impaired. In 1927 the Commander-in-Chief was compelled to draw attention to the fact that the equipment of the army had fallen and was progressively falling below modern standards. He estimated that a special outlay of ten crores would put the army on its feet. A scheme for the stabilization of the defence budget was thereupon introduced. Fifty-five crores were to be placed at the disposal of His Excellency for 1928-9 and the following three years. The army itself was to undertake an economy drive and internal savings were to be retained and to pass to a military reserve fund.

Actually up to 1931-2 the sum of seven crores was obtained in this way. Critics at the time pointed to the savings as a proof that the army was normally most extravagant. They forgot that half of the saving had been obtained by a fall in standing charges;

that is to say by a turn-over of British ranks to new and lower rates of pay and by a fall in wholesale prices.

The severity of the depression forced a reduction in the stabilised defence budget and by 1933 the actual net expenditure had fallen to 44½ crores. Under the conditions prevailing it was only right that defence expenditure should be reduced, for all classes in India were called on to make sacrifices. But it must be remembered that at least some of this saving was effected by a reduction in stocks, by a postponement of building programmes and programmes for modernising the forces; a process which could not go on indefinitely. Unhappily rapid obsolescence is common to-day. But that is the work of the scientist and the inventor. The soldier is not to blame. The critic may well remark that these are the views of the soldier. Let us turn then to the remarks made by the commissioners who were appointed by Act of Parliament to enquire into the Operation of War in Mesopotamia:

“It is the primary duty of every well-regulated government to enforce effective economy. In other words to prevent waste and yet secure efficiency. Simple as is the phraseology of this formula, it is in practice most difficult to enforce. A policy of strict economy had been insisted on by the India Office and by Simla for many years. We should like to draw attention to the manner in which the Army in India suffered during the era of economy before the war when military estimates were ruthlessly cut down, often, it is feared without due consideration. The result was that the army was inadequately equipped, not only for an overseas expedition, but even for frontier requirements.”

The present generation cannot of course realise conditions on the Tigris in 1915, but the moral is there for all to study.

To revert to another aspect of the question. It was pointed out earlier in this article that to compare Indian defence costs with those of other countries was not fundamentally a sound argument. It is however to meet the critic on his own ground that the table below has been prepared. It is hard to make an accurate comparison between the various countries as regards expenditure on armaments. Nations class expenditure under different heads and it is not possible to draw a clear line between armament

and non-armament expenditure. Commercial aircraft factories can turn over to the production of military aircraft with little disturbance. Chemical industries producing fertilizers in peace can produce explosives in war. Professional armies have to be paid at a higher rate than conscript armies, a factor which affects the United States, Britain and India more than it affects other countries.

Approximate Defence Expenditure of various nations

		Millions Sterling		Per cent of 1935-6 Revenues.	Cost per head 1935-6.
		1931-2	1935-6.		£ s. d.
<i>Western Nations</i>					
United States	..	140	195	20% of central revenues	1 12 0
Italy	..	58	170	40%	4 0 0
Germany	..	50	500	..	6 0 0
France	..	140	146	30%	3 10 0
Russia	..	119	580	..	3 0 0
Great Britain	..	92½	109†	15%	2 10 0
<i>Eastern Nations</i>					
Japan	..	45½	60	46%	0 14 0
Slam	..	1½	2	22%	0 3 0
Iran	..	3½	3	..	..
Afghanistan	..	..	1.3	..	0 2 6
India	..	34	31	23% of total revenues.	0 2 6
<i>Dominions</i>					
Canada	..	3 6	3.7	3½% of total revenues.	0 7 6
South Africa	..	.76	1.75	4½% of total revenues.	0 3 0
Australia	..	3.67	5.6	5% of total revenues.	0 16 8
New Zealand	..	.69	.94	4%	0 15 0

These figures are only rough approximations and so it would be wrong to attempt to deduce more than general tendencies from them, but even these general deductions are not without interest. For instance it will be noticed that almost every country has increased its expenditure on armaments during the last few years. India has reduced hers. Again, while the percentage of revenue devoted to defence is high in Asiatic countries, notably so in the case of Japan, the burden per head of population is low.

Then one may remark on the small burden which defence places on the peoples of the Dominions. There is undoubtedly truth in the argument that the Dominions do not bear their fair share of imperial defence. But the deduction that India bears more than she ought is not on that account alone a logical one.

There are two sections of opinion which may well be noticed at this point. The first is one that is prepared to accept the assurance of India's advisers that military expenditure is not conducted

†Large increases since 1935.

in a wasteful manner, but maintains that the cost is nevertheless more than India can afford. The argument is based on the analogy of the man who is so poor that it would be folly for him to pay an insurance premium at all. It is a most difficult one to answer. In fact the writer can think of no reply except to say that this is a counsel of despair for which in his opinion there is no real justification.

The second section is one that holds that India gains nothing from being in the Empire, in fact that she pays heavily for the privilege. The proponents of this theory forget that from a military point of view, India has at her disposal the latest refinement of equipment, the newest British invention. Without Britain, would not India have to face an increased bill for research and experiment? They forget that the cost of British troops in India was in fact the subject of most careful investigation in 1932, when an advisory tribunal under the chairmanship of Sir Robert Garran presented an unanimous report on questions arising out of the so-called Capitation Charges, which were made by the War Office and the Air Ministry in connection with the raising and training of British troops for service in India. The report involved acceptance by the Government of India of capitation charges calculated in accordance with the tribunal's suggestions as a legitimate charge against Indian revenues; but it also involved the payment to India of a sum from British revenues towards the cost of Indian defence and the net result was a gain to India of about one and a half millions sterling a year.

They also overlook the fact that India obtains practically free protection for her overseas trade which, before the depression, consisted of exports and imports to the value of 340 and 300 crores of rupees respectively. The Royal Indian Navy consists only of five sloops, one surveying and one patrol vessel. It is designed for local protection of Indian coasts. Including a small grant for the imperial navy, India has never yet paid a crore a year towards the protection of her overseas trade. The security provided by the British Navy was remembered by Indians when the Emden visited their shores in 1914. In peace it is forgotten.

And there are other benefits which India receives from her connection with the Empire. British consular and diplomatic representatives look after the interests of Indians abroad. India gains prestige from her membership of the Empire. She is an independent member of the League of Nations, she is represented at

Imperial Conferences, she has her trade commissioners in London and elsewhere. More important are the facilities she gets for borrowing on the London money market. How many other Asiatic nations can raise loans at so low a rate as India?

While India has on occasions been able to lend forces for Imperial expeditions in the past, as in Egypt in 1882 and at Shanghai in 1927, it has been the British taxpayer who has paid the bill. Circumstances may well arise in future when India will be only too glad to borrow troops from Britain.

Without being didactic one may reasonably make two deductions from this brief survey of Indian military finance. The first is that undue economies in defence expenditure always entail a larger and more oppressive burden at a later date. Indeed it is a lesson which the British public is now learning to its cost. The second is that India outside the Empire would find herself faced with a defence bill which in all probability she could not meet at all.

It remains only to review the size of the forces India maintains and to consider whether they are, as is alleged, more than enough to afford her reasonable security.

Now the objects for which Indian Defence Forces are maintained were agreed to by the Legislative Assembly in 1921 and were later approved by the Cabinet in London. Those objects were resistance to external aggression and maintenance of internal order. The size of the Army in India is not dictated by the War Office any more than the size of the Royal Indian Navy is dictated by the Admiralty. The size is decided by the Secretary of State for India on the advice of the Governor-General in Council and on the understanding that the army is not an imperial force but one intended directly for Indian Defence. Within the limits set out, the organization of the army is and always has been the duty of India's military advisers. As is well known, those advisers have divided the available forces into covering troops, internal security troops and a field army.

In peace the covering troops undertake the ordinary watch and ward duties of the frontier; in war they have also to cover the mobilization of the field army. The force has varied slightly at different times since 1918, but on an average it has consisted of two Indian cavalry regiments, four British and thirty-six Indian battalions, twelve light and mountain batteries and the normal proportion of supporting arms and services.

As a rough total one may take it that the covering troops number 33,000 fighting men. In addition there are the irregular forces of the frontier—scouts, militia, levies, constabulary—numbering about 15,000 men. The day-to-day work of these irregulars is of course invaluable, but they are lightly equipped and the ultimate responsibility for the peace of the frontier lies with the Regular Army. When it is realised that there are a quarter of a million modern rifles on the North-West Frontier and that the Mahsud alone can arm 14,000 out of 18,000 men, the force does not appear excessive. Moreover, frontier troubles are of regular occurrence. In 1930 for instance the following are among the events that took place: The Afridis raided the Khajuri and Aka Khel Plains, necessitating protracted operations and the use of two brigades not of covering troops but of the field army in addition to covering troops. Datta Khel was attacked by 4,000 Mahsuds. Boya Fort was heavily sniped and Bannu raided. A Mohmand lashkar was only dispersed after air action had been put in hand. And 1930 was not really an exceptional year, for similar operations have been necessary at periodical intervals ever since the British crossed the Indus.

The trouble is that a frontier expedition to-day is a serious operation of war requiring a high standard of equipment and at times a large number of men. In 1852 an expedition entered Waziristan with fifteen hundred men. In 1920 it required forty-five thousand to deal adequately with the situation. The change has been brought about by the arming of the tribes with modern rifles. These facts are unfortunate, but the creation of law and order on her borders is a duty which no civilised power can refute for long. Nor is there any reason to believe that the fulfilment of that duty will ruin India. Operations under the "Close border" policy of the 'nineties cost on the average fifty lakhs a year. Although the occupation of Waziristan was in itself an expensive move, the expenditure on frontier operations since 1924 has dropped to some thirteen lakhs annually. That India's burden will eventually disappear is possible. Until it does so, it is hard to see how she can reduce her covering troops.

Turning to internal security, a table of great length could be drawn up to show typical occasions on which troops have been called out to aid the civil power. In 1930-31 there were actually one hundred and eighteen requests for troops to stand by and these requests came from seventy different places in India. Many

reports stated that regular troops could not be got to the scene of trouble sufficiently quickly. And the use of Auxiliary and Territorial Forces for this work in peace is plainly undesirable, since it dislocates the ordinary life of the community. The troops normally maintained for internal security purposes are ten regiments of cavalry, fifty-three battalions of infantry and five companies of armoured cars. Yet these troops proved insufficient for the purpose in Malabar in 1921, in the North-West Frontier Province in 1930, in Burma in 1932 and in Bengal in 1933. It is at least a reasonable deduction to say that, were the country to reduce its internal security forces, it would have to meet a greatly enhanced police bill.

As regards the field army, it is perhaps illogical to refer to the 300,000 first line troops which Japan can put into the field or the 600,000 which Russia has immediately available; for both countries have their own defence problems and both have embarked on a military expansion which is as distasteful to the Indian as it is to the Englishman. Still, the comparison with India's small field army of four infantry divisions and four cavalry brigades is sufficiently striking to make one reflect. And these reflections become graver when one realises that one or other of India's field army divisions is frequently mortgaged to a role not properly its own. The case of Bengal has been quoted, Waziristan is before us to-day. Moreover the Indian Army Reserve is a small one, a handicap from which all long service armies must suffer. Its strength since the war has averaged only 35,000 men.

Equally serious is the lack of an officer reserve and it is difficult to see how this could be quickly remedied in war. The Auxiliary and Territorial Forces, although their cost is borne by the Defence estimates, do not form part of the Regular Army in India. The Auxiliary Force is designed only for local service. The Provincial battalions of the Territorial Force are in emergency liable for general service, it is true, but they would require some months of intensive training after embodiment before they could replace regular army units. In 1935 the strength of the Auxiliary Force was about 33,000 men, the establishment of the Territorial Force was only 19,000. The smallness of Indian Army Reserves is only too apparent.

Another factor which intimately concerns the well-being of an army is its administrative services. During the Great War it was found necessary to maintain in the field forty men of the

administrative services for every sixty engaged in the combatant arms. The former thus constituted $66\frac{1}{2}$ per cent. of the latter. That ratio has since been reduced to about 30 per cent.*

Admittedly the incidence of supply and evacuation may not be as heavy in a future campaign as it was in France and Mesopotamia, but it cannot fairly be held that the military authorities have over-insured in this respect, when the difficulties of improvising from the Indian market are remembered. As regards the other services, the Royal Indian Navy has already been mentioned. It may, however, be appropriate to point out that the sloops of which it consists are small vessels of some 1,300 tons. It contains no cruiser or light cruiser. Its personnel and annual cost are roughly equivalent to those of a single unit of the British Navy, H.M.S. *Nelson*. Were British naval supremacy in the Indian Ocean to be lost even temporarily the Royal Indian Navy could not possibly hold the field against a foreign maritime power.

As regards air forces, India maintains eight squadrons. Four of these are Army Co-operation squadrons and so do not contribute directly to India's air strength. The bomber squadrons alone represent her independent air forces. It is a fact that the air threat in India is not to be compared with that in most European countries, but when the extent of her frontiers is appreciated and the numerous occasions which have called for the help of these aircraft are remembered, it would again be absurd to call this small force excessive.

This article has not been intended to paint an alarmist picture but to refute some of those ill-founded criticisms which one hears so often made by Englishmen and by Indians. The picture is for all that a sufficiently serious one. In the writer's view the position may be summarised as follows:

The argument that military expenditure is unproductive is only true superficially. Admittedly in peace time the armed forces produce few tangible results. But productivity of material goods is no more an object of the soldier than it is of the policeman. The aim of both is to produce that security under which alone can material benefits be realised.

The deduction that military costs should be cut on every possible occasion is fundamentally unsound. It might be

*In 1914 it was 19 per cent.

applicable in Utopia. Unfortunately it has not applied to the British Empire.

The contention that India's military advisers have in the past been extravagant is not correct. The events of the last few years alone prove the contrary. The future holds out few hopes of lasting peace.

The reason why India feels so much the costs of defence is that her revenue is comparatively small. In Europe costs are as big. If they are less oppressive—and even this is a debatable point—it is because revenues are larger. The remedy lies in the hands of Indians.

A more equitable distribution of the burden of defence throughout the Empire is certainly desirable. But if it came about, it would be Britain, not India, who would gain. For the greater share of imperial defence is borne to-day, as it has been borne for a century, by the people of England.

VELOCIPEDESTRIANS

BY "MOUSE"

Recently I came across a crazy idea in an historical novel. The originator was a dour Scot who refused to acknowledge the Hanoverian tenancy of the British throne and fought with rare obstinacy for the Stuart claims. During the shaky period of the monarchy prior to Queen Victoria's accession this wilful person decided that the only way to beat England in war was by mechanisation. He evolved a contraption whereby his infantry by sitting on a wheeled frame could propel themselves by their feet, thereby achieving a speed for an army of four to six miles an hour. This rate was double that of the Hanoverian forces, and gave him the necessary mobility without which no battle can, I understand, be won.

He was attracted to this rather indecent and unsoldierly method of mobility by what he thought (erroneously, of course, since the war in Palestine had not then been contemplated) the inadequacy of the cavalry arm. He had some experience of cavalry. He must have had, because otherwise he could never have written the harsh words he did about horses in warfare. Let me quote his harsh words in support of his bicycle project: "No water; no forage; no sickness; no upkeep; no stampeding horse-lines; no waste of man-power on horse-pickets! Mobility, without the disadvantages of cavalry!"

Any modern soldier, brought up in the right traditions, will immediately pick punctures and holes in the above blasphemous and ignorant criticism. It was written over a hundred years ago and, obviously, the writer did not realise that civilisation and strict governmental rules ensure that the upkeep of an office bicycle keeps one man daily and three clerks monthly to maintain its rather heavy standard of efficiency. (The voice of the C.M.A.: "Daisy, Daisy! Give me an answer, do.")

This, I think, must be the aim of real democracy, *i.e.* that every puncture to every bicycle employed by Government must be accounted for. Otherwise there will be chaos. It would be awful if the same rigorous rule were applied to horses going lame. But, fortunately, Government being almost as human as its horses realises where its flesh is weak, and quite rightly says nothing about it.

This rather serious introduction to the subject matter may influence the reader to an unfortunate impression of my standpoint. My idea is, as usual, entirely frivolous.

Supposing in every station with roads where soldiers are quartered in India each soldier was issued with a bicycle (handle-bars, tool-bag—complete with Mark II and III spanner and oil-can—pump, head-light, number-plate, jappanned, etc., etc.) free? Supposing that there were no cavalry near or that the nearest regiments were suffering from cold hocks (or the latest equine disease fashionable at the moment and preventing any movement except watering). Supposing there was a petrol-war rendering the adjacent M.T. lorries immobile.

In fact, will you please suppose that circumstances—improbable in peace and of daily occurrence in war—render all the so-called mobile arms impotent and necessitate the move forward of infantry on their feet to fight. Supposing all that, would you, as the G.O.C., be happier in your mind if you had a few roads and a few battalions on bicycles?

I admit now that I don't know the history of the cyclist battalions in France; I can readily believe that they must have been a confounded nuisance to the staff in the congestion of the roads in the rear areas. They have been abolished; they were presumably a failure in trench-warfare (I personally would hate to have to mend a puncture in a trench); but in the more open methods of warfare now advocated I can't help thinking that the infantry soldier would find more happiness and security on a push-bike than on his feet (or horse, naturally).

There are probably many cogent objections to these nebulous ideas of making all infantrymen cyclists. Expense is the main difficulty; but, for instance, if every British soldier was given a bicycle on his arrival in India as a concession (to be maintained in working order at his own expense for military purposes when necessary), it would be a boon to him and a blessing to the God of Mobility. Officers in the British service in England are given horses for exactly the same purpose.

In the plains of India and for Internal Security purposes bicycles would be useful; on the frontier a reserve store in the higher stations like Wana, Razmak and Landi Kotal would give a dash (almost cavalry in its feeling) to the riders spinning down the road to some beleaguered outpost.

I now wonder if that dour Scot who visualised Velocipedestrians deserves the adjective "crazy."

THE CLOTH MODEL AS A MEANS OF INSTRUCTION

By "PLAUTUS IMPENNIS"

The use of the sand model as a means of tactical instruction is of long standing. Sand models, though excellent in many ways, have certain disadvantages. They take time and labour to build; are difficult to make realistic; are usually, owing to their weight and immobility, restricted in size; and cannot be walked upon. These characteristics are liable to prevent their construction on a sufficiently large scale to enable full value to be got from them and to prevent their dismantlement when once built, with the result that instruction given on them is likely to become stereotyped.

A cloth as opposed to a sand model has much in its favour. Quickly and easily laid, it can be walked upon and is limited in size only by the floor space available.

There is no doubt whatever of the value of models as a means of instruction and it is thought that many who are now deterred by the known disadvantages of the sand model would make more use of this means of teaching, had they a cloth model at their disposal. For the representation of tangled mountainous country such as the North-West Frontier of India a cloth model is eminently suitable.

The "properties" needed in a cloth model are—

A large khaki or dust-coloured sheet of cheap cotton cloth.

The cloth must not be so thin as to be flimsy or so thick that it will not lie in natural folds when spread on the ground. A cloth of the texture of an ordinary bed sheet is suitable.

Plenty of stout waste paper which, when crunched into a ball, will bear the weight of the cloth without subsiding. Newspaper can be used but packing paper is better.

Models to represent troops, buildings and so on.

Two or three six-foot laths marked off in feet for use as scales, and some old billiard cues for use as pointers to aid description.

Coloured powders, of the kind used for dyeing, to represent crops, water and rough ground, and cotton wool

dyed green to represent trees and vegetation. Coloured tape and wool to show roads and tracks and to represent boundaries.

A large arrow to hang on the wall to mark the North Point.

A cupboard with plenty of shelves in which to keep all these articles.

This may appear a formidable list, but it is not so in reality and the cost of the properties is very small in comparison with the value of the instruction that can be given with their aid.

To get full value from an exercise on the model the representation of troops, buildings and transport must be as realistic as possible. Attempts to show these by labels or flags, the meaning of which is not readily apparent to those attending the exercise, will rob it of most of its value and entail lengthy description before the real business can begin.

It is essential, therefore, that properties should be designed and laid out with imagination and due regard to their effect on the minds of those who are to use them. Unless this is done the exercise might as well be carried out on a map.

As regards details, *fighting troops* can best be represented by strings of large coloured beads, such as can be bought in any Indian bazaar. Different colours can be used to represent various arms or to distinguish between different units and sub-units of the same arm. It is preferable, however, to reserve the beads for infantry and to show cavalry, artillery and armoured troops by small wooden models roughly carved to resemble mounted men, guns or tanks. No wheels or other elaborations are needed and the different natures of artillery can be easily shown by models of different sizes. All these models can be made very cheaply by any ordinary carpenter. Symbols to show machine-guns in action will also be wanted and small strips of tin about a quarter of an inch wide by two inches long and painted black are useful to represent section trenches. The coloured glass bangles which can be bought by the hundred in any Indian bazaar are excellent for representing platoon or section posts and areas.

Headquarters can be shown by small flags cut out of coloured paper to correspond with the distinguishing flags laid down in the Field Service Pocket Book. Sets of unit headquarter flags of various colours are useful.

Models of tanks and guns cannot of course be made to scale but should be large enough to be easily visible to spectators. It will usually be preferable to make one model gun represent a battery or section according to the scale of the model. One model tank can similarly represent a company or section.

For the *administrative services* lorries and ambulances can be made out of small wooden blocks roughly carved to resemble the outlines of the vehicles and painted to taste. Again, one such block can be made to represent five, ten or twenty vehicles to suit the scale of the exercise. Small pieces of tin painted white and folded to stand up form good models of tents for camps, dressing stations and bivouacs. Supply depots and dumps can be simulated by children's bricks. *Arcs, zones of fire and inter-unit boundaries* can be effectively shown by different coloured strands of wool, and concentrations of artillery fire, whether H.E. or shrapnel, smoke or gas, can be realistically represented by cotton wool dyed grey, white or yellow. Barbed wire can be shown by the tinsel edging procurable at most drapers.

To represent *hills and broken ground*, stiff paper should be crumpled up into the rough shapes of the features it is desired to represent, and then the cloth, spread out to its full extent, should be lowered gently on to the paper where it should be allowed to rest naturally. No moulding of under or minor features is usually necessary as the cloth falls of itself into spurs and re-entrants. Should it be desired, after the cloth is in position, to alter the height or shape of any feature, this can usually be done simply by treading on it without removing the cloth. A little practice will soon show how much or how little paper is needed to produce features of the required height and extent.

Rivers, streams and lakes are perhaps not so easy to show as realistically as they are on the sand model. Unless a loose earth platform can be provided over which the cloth is laid, it is not possible to make indentations in it to represent these features. High banks can, however, be quite well known by paper rolled in long cylinders of irregular shape. Water is best represented by light blue powder sprinkled on the cloth and then smoothed out with the hand or a brush.

Trees and bushes can be excellently represented by small pieces of green cotton wool arranged in clumps, lines or patches; if the wool is applied with imagination, the effect can be most

realistic provided trees are not too regular in shape or size. Trees and bushes can not of course, except on very large-scale models, be made to scale, but this need not impair the general effect.

Crops, grass, rocks and barren ground can be simulated by different coloured powders or by actual stones and green rush mats as used in fruiterer's shops. On small size models it should rarely be necessary actually to represent crops, though a green patch here and there will add realism to the model and aid description.

Buildings can best be shown by small wooden blocks quite plain in shape but of different sizes. If they can be of varying colours, with roofs and windows painted in, the general effect will be better. Except on large-scale models, for which special properties are necessary, the houses need not be to scale as each block may represent one house or several according to the general layout of the model. There should not, however, be too great a discrepancy in size between models of houses and models of guns, etc.

To lend interest to the view and to facilitate reference, it is most desirable to have some special models such as churches, forts, lighthouses, mosques, temples, obelisks, windmills and towers. These are easily made of tin or wood.

Enclosures can be shown by tin strips bent to the required shape, and hedges by thick green wool or cord. Children's bricks with a letter of the alphabet on each are most useful for labelling villages or other points needing identification, but care should be taken not to destroy the realistic appearance of the model by too extravagant a use of these.

Railways can be shown by pink tape, or the braid used for edging chair covers, etc. Broad white tape can be used for main roads, narrow tape for cart tracks and white knitting wool for footpaths or mule racks. Bridges can be represented by small wooden models of various shapes and colours. Aerodromes and landing grounds can be marked out with white beads. For large-scale models, toy railway tracks of minimum gauge with accessories such as signal posts, stations and sidings, add interest to the model.

For exercises on a brigade basis, experience has shown that a model 45 feet by 15 feet meets most needs and is a convenient size

for laying down in a large barrack room or lecture hall. On a model of this size, a continuous exercise, comprising five or six distinct phases, each of which may form the subject of a morning's work, can be conveniently staged, thus obviating the necessity for remaking the model after each phase and facilitating the grasping of the general picture of the operations by those participating.

As a cloth of this size is inconvenient to handle it should be made in two halves, each of which can, when desired, be used separately for smaller exercises.

The value of a long model is specially evident in a frontier warfare exercise dealing with the advance of a column by stages.

The scale of the model will vary with the scope of the exercise. For elementary subjects, such as the handling of a fighting patrol or the detailed procedure for posting a piquet in frontier warfare, a scale of one foot to a hundred yards, or even fifty yards, will be found suitable. On such a model troops and enemy can best be represented by toy soldiers and model machine-guns. For an exercise which may deal in some considerable detail with the action of a regiment of cavalry or an infantry battalion, a scale of one foot to two or three hundred yards should meet requirements. For an exercise in which a brigade with attached troops is to be deployed, a scale of one foot to six hundred yards or a yard to a mile has been found suitable; on a model of this scale it is still possible to show dispositions down to troops and platoons if it is desired to do so.

The vertical scale of the model must be exaggerated in respect to the horizontal; a suitable vertical scale for a model on a horizontal scale of one foot to six hundred yards is one foot to 500 feet, but for frontier warfare exercises this may need modification.

Having decided on the nature and scope of the exercise and the particular lessons to be learned from it, a rough outline sketch, corresponding in shape to the model and in accordance with the scale on which the model is to be laid out, should be made.

It is easier and much more effective as a rule to make this from imagination to suit the purpose of the exercise than to try laboriously to copy on the model some area of actual ground. The sketch should usually be reproduced for issue with the opening situation. Should it be desired to discuss some past or future operation, it may be desirable to represent the actual ground on

the model but this can, in any case, only be done with doubtful accuracy and in broad outline.

For instructional purposes, a model specially designed to suit the exercise will nearly always be preferable.

The sketch having been made and the various situations which it is desired to produce roughly worked out with its aid, the preparation of narratives and problems may be begun.

It will usually be desirable to open any continuous exercise with a problem demanding an appreciation of the general situation as its solution and so put every one into the picture; such a problem should be capable of solution with the aid of the sketch map and without reference to the model itself. All subsequent problems should, as a rule, be issued in the model room itself and solved there and then.

The narrative issued after each problem should contain a suggested solution of it which should be the basis of the next problem.

Problems must all be concrete and not hypothetical. In a model exercise any problem or question which does not bear a direct relation to the situation shown on the model itself is out of place and a waste of time.

No attempt must be made, except in very large-scale models designed to instruct subordinate commanders, to study in detail the minor tactics of small units such as platoons.

The solutions to problems should usually take the form of verbal appreciations of situations or verbal orders to deal with a given situation.

An appreciation is perhaps the most satisfactory form of problem as it entails the building up of clear and logical arguments leading to definite conclusions.

Minor or tactical situations dealing with small units can be dealt with by demanding a brief statement of the commander's action in the circumstances shown.

In determining the number and scope of problems to be included in a morning's instruction on the model it is desirable to limit the duration of the morning's work to about two or, at the most, three hours. In large exercises dealing with the employment of a brigade, battalion or regiment, it will be found that not more than three problems can usefully be studied in the course of a morning and it may often be necessary to reduce this number to two.

The rough sketch having been made and the problem, solutions and narratives prepared, the model must be laid out. An area of the same size as the model cloth and a few of the key points shown on the sketch should be marked with chalk or otherwise on the floor of the room in which the model is to be made. Paper rolled or crunched into the rough shape of the hills shown on the sketch should then be placed on the floor in positions roughly corresponding with those on the sketch; exact correspondence is not essential so long as the general look of the landscape is the same but it may be necessary to take more care to ensure that some particular features designed to bring out particular lessons are more accurately depicted than others of less significance. When the paper hills are all in place the cloth should be spread out in the air and lowered gently on to them and allowed to settle in natural folds. When the cloth is in place, villages, woods, lakes, rivers, roads, paths, etc., can be added very quickly in the manner already described. To simplify description, villages and towns should be described by letters instead of names and this method may also be used for hill features especially in frontier warfare exercises. Villages, etc., should be actually marked with these distinguishing letters as already described. It is worth a little trouble to try and make the model realistic and attractive so as to interest and amuse those attending the exercise and thus focus their attention on the tactical value of the features represented.

It should be possible, after a little experience, for two or three officers helped by a few men from brigade or unit intelligence sections to lay out a large-sized model in a couple of hours without much difficulty; such a model may serve for five or six exercises, each lasting a morning, without becoming a stale.

It will usually be advisable, except in elementary exercises on a large-scale model, to divide those attending into syndicates. In a brigade exercise each syndicate should, if possible, include a representative of each arm; in any case every effort should be made to include an artillery officer in each syndicate. A representative of the administrative services should be included in syndicates whenever possible. Syndicates should not have more than five or, at the most, six members or general discussion within the syndicate will become impossible and the exercise will lose much of its value.

The allotment of time for the solution by syndicates of each problem and the subsequent general discussion of solutions needs careful calculation. For each problem, up to five minutes may be allowed for the Director to explain the situation as shown on the model and to put the question.

To calculate the time needed by a syndicate to solve a problem it is a good plan to assess the time likely to be taken in similar circumstances by a commander in the field to come to a decision and then to double or treble it to admit of full discussion within the syndicate. It will rarely be advisable to have more than five or six syndicates and, even then, it will not be possible to hear each syndicate's solution to each problem; it will generally suffice to allow two or three syndicates to state their views fully and then to ask the remaining syndicates to give their conclusions briefly after which the Director can make his comments and invite discussion. For the discussion of any considerable problem half an hour to an hour may have to be allowed. Undue shortening of the time allowed for discussion will defeat the object of the exercise. Each member of a syndicate should act in turn as its spokesman.

Time, usually about fifteen minutes, though more may be needed, must be allowed for the Director to sum up at the close of the morning's work and stress the lessons brought out by the exercise. During the exercise all references must be made to the model and not to the map which should be discarded immediately the opening situation is disclosed on the model.

With the model before them, those participating in the exercise should not be allowed to generalise or indulge in hypothetical statements but must be made to express definite opinions directly connected with the situation shown on the model.

After each exercise the Director should issue a brief note describing the conclusions reached and the lessons to be studied.

No amount of instruction on a model can replace instruction on the ground, but exercises on the cloth model can, it is claimed, serve an essential purpose in teaching principles and procedure and so save much valuable time when opportunity occurs to stage exercises on the ground.

Exercises on the model ensure that students shall teach themselves and learn from each other instead of straining themselves to

imbibe instruction from lecturers who may not be particularly good at imparting it.

Those participating in a model exercise cannot help using their brains, and so cannot fail to benefit.

The Director of a model exercise has excellent opportunities of assessing the character, knowledge and reasoning power of those taking part and of impressing his views on them.

Above all, these exercises, even more so than exercises on the ground, serve to bring together, in circumstances of comparative comfort which facilitate free discussion, officers of different units and arms of the Service and thus promote true co-operation and understanding.

THE PASSING OF THE R. A. HORSE DRIVER

BY MAJOR M. E. S. LAWS, M.C., R.A.

One result of the rearmament programme adopted by Britain has been the acceleration of the process of mechanising the field artillery, so that within a few months every mobile battery at Home will have abandoned the horse both as a means of traction for its guns and for carrying its staff. This change has in turn confirmed the death sentence already threatening the Royal Artillery horse driver who will now be replaced by the Driver I.C. (Internal Combustion).

The story of how the Royal Artillery got its horse drivers is of considerable interest since it illustrates the various methods of solving a problem which to some extent is still a matter for controversy to-day. In the earliest days of artillery development the guns were so clumsily mounted that they were considered by the other arms more as a hindrance to manoeuvre than as a support in action. It was not until the Seven Years War that any idea of moving a battery on the battlefield occurred, but at Minden (1759) the guns actually changed position during the engagement and this manoeuvre may be said to mark the dawn of field artillery tactics.

At that time and for many years later, the Royal Artillery was organised in companies and battalions. A company, when required for mobile artillery work, collected its equipment from the Ordnance Department and was fitted out with horses and civilian drivers by contract, the whole assemblage being designated a "Brigade of Guns." The drivers were peasants who wore no uniform, were unarmed and were not subject to military law except as camp followers. They walked beside their teams and could not ride. Not unnaturally these yokels seldom behaved well in action, being apt to cut their horses clear of the guns and to escape to the rear when danger threatened. At the hard fought battle of Fontenoy, the loss of guns in action was officially attributed to the cowardice of the civilian drivers (*Gazette* of 11th May 1745), and after much consideration it was decided to abandon the hired "waggoner" and to replace him by an enlisted soldier.

In 1794 this proposal was finally accepted and the Drivers Corps was formed "as an additional corps to the Royal Artillery."

Unfortunately the evil reputation acquired by the waggoners had so influenced the authorities that instead of enlisting drivers into the Royal Artillery they preferred to create a separate corps and to regard its personnel as of an inferior category to fighting men. Drivers (with their horses) from the Drivers Corps were, therefore, attached to artillery companies detailed to man "Brigades of Guns," but they served under their own officers and were in no sense a permanent part of the unit. Inevitably, in a newly formed corps which had the evil reputation of its predecessors to live down, the Drivers Corps did not attract the best type of officer, and as the men were always attached in small parties to different companies of artillery, matters concerning pay, stoppages, rations and clothing were too often neglected. As a result the discipline of the Drivers Corps left much to be desired and was the subject of bitter complaints. But the drivers could ride after a fashion and were therefore an improvement on the dismounted yokel who merely walked beside his team.

An exception must be made in the case of the Drivers Corps detachments allotted to troops of the Royal Horse Artillery. These men remained permanently with their units and were paid, clothed and administered by the troop, with the result that they were regarded as part of the battery. But with the field artillery it was very different. During the Peninsula War, Wellington was compelled to hand over his bridging train to the R. A. personnel though the unit was supposed to be manned entirely by the Corps of Gunner Drivers—a new designation which had replaced the original "Drivers Corps" in 1801. In 1806 the Corps was renamed "The Corps of Royal Artillery Drivers" and in 1807 it was placed under artillery officers. During the Waterloo campaign the Duke of Wellington asked for four companies of foot artillery for service as drivers, preferring this untrained personnel to that provided by the R. A. Drivers Corps. Under these conditions it was no wonder that the Corps was abolished on 1st January 1822 when its surviving members were distributed among Companies R. A. so that each unit received four gunners and five horses.

The system of having a separate corps to provide drivers and horses for the Horse and Field Artillery had definitely failed, and in 1821 it was decided to enlist all artillerymen as "gunner-drivers" instead of "gunners," thus introducing the principle by which the

regiment provided its own men and animals to draw and fight its guns. Unfortunately no adequate means of instructing artillerymen in mounted duties were provided, and the Companies R. A. were quite untrained in field artillery work. The despatch of the expedition to Portugal in 1827 showed the failure only too clearly, but nothing seems to have been done to improve matters. Companies were supposed to train as field batteries for a year at Woolwich in turn, and then to revert to garrison duty to make way for others, with the result that no company had time to become really proficient as a mobile field artillery unit. The Crimean War brought the matter to a head, and in 1858 drivers were finally separated from gunners and were enlisted with some regard to their physical fitness for mounted duties. With the amalgamation of the Indian artilleries with the Royal Regiment came the necessity for maintaining a large number of field batteries in the East and the provision of trained horse drivers became essential. Though in theory artillery units were still liable to be changed from field to garrison duties as required, it gradually became recognised that this was seldom a practicable proposition, and in 1889 all Batteries R. A. were definitely allotted either to field or garrison roles. With this change the artillery horse driver at last got a fair chance; specially recruited and trained, he soon acquired a very high standard of efficiency and the success of this system was clearly shown on many a South African battlefield.

During the war of 1914—18 it became necessary to provide heavy gun and howitzer batteries for mobile work in the field, and the equipment selected was too heavy for horse traction. When motor vehicles were therefore provided for these "Siege Batteries" it was decided to entrust the driving and maintenance of these tractors and horses to the Army Service Corps and not to the R.A. personnel. Just as a century before detachments of the Drivers Corps had been attached to Companies R. A. in order to provide the means of moving their guns, so in 1914 A. S. C. units were attached to Siege Brigades for a precisely similar purpose. In vain gunners protested at this reversion to a system which had been so clearly proved to be unsound in principle, and it was not until some years after the Armistice that Artillery Drivers I. C. displaced A. S. C. personnel in mechanised batteries. In 1925 it was

decided to abolish the rank of driver and to appoint gunners as horse drivers when required.

But to-day the march of progress has decreed the passing of the artillery horse driver—except in India where for some years at least the field batteries must remain horsed. But the army at Home will soon be unable to find horse drivers to replace the normal wastage of the Army in India, and the inevitable consequence must be the disappearance of the British horse driver and his replacement by the Indian horse driver. Such a step would in turn abolish the 80 years old custom whereby all gun teams in India have been entrusted to British rather than to Indian personnel. This custom is a relic of the Mutiny, however, and deserves little consideration to-day in view of the political changes already in progress and of the greater share of the burden of defence which is now being undertaken by Indians.

It was only natural that the example set by the Royal Artillery should have been followed in India as closely as local conditions allowed. In the earliest days of the British in this country, guns were drawn on the line of march by bullocks tended by non-combatant drivers seated on the yokes. In action, however, it was found more satisfactory to use man power and in 1770 twenty-eight companies of enlisted gun lascars were formed and attached to the five European companies of the Bengal Artillery. Each of these lascar companies consisted of two serangs, two tindals and one hundred lascars. It is noticeable that these lascars, though primarily intended merely to move the guns in action, were often employed on ammunition supply and similar semi-technical duties normally performed by British artillerymen. The Corps of Gun Lascars was considered to be separate to the Bengal Artillery and was in effect an auxiliary corps in the same way that the Drivers Corps at Home was auxiliary to the Royal Artillery. The men were invariably of low caste, and though the serangs and tindals were at first commissioned and ranked with subedars and jemadars (General Orders of 16th June and 18th September 1788) these privileges were removed in 1792 (General Orders of 7th September 1792) and their rates of pay were always much lower than those of equivalent status in the other regiments. But the gun lascars were subject to military discipline and in fact always behaved well in action, though they were regarded as menials rather than as fighting men.

In 1779, after a short period of disbandment, the Corps of Bengal Gun Lascars was reformed, the men were given arms and a simple uniform and were trained in "all the duties of the ordnance with the exception of pointing and loading guns and mortars." (Proceedings of the Governor-General, 3rd August 1779.) Yet they were still used as coolies to manœuvre the pieces in action. A battalion of 330 gun lascars was attached to each European company of artillery, there being ten battalions in all. It should be understood that at that time artillery companies had no fixed armament: guns were drawn from store according to the requirements of the particular service on which the unit was engaged. The organisation was indeed very much the same as that of the R. A. in Britain at that time.

In 1817, following on the undoubted success of the Horse Artillery both at Home and in India, an experimental field battery was formed in Bengal and in the following year sixteen more such units were equipped, of which three were given horses and the remainder bullocks. This reorganisation led to the reduction of the gun lascars, a few of whom were retained only for magazine fatigue duties (Governor-General's orders of 28th August 1822) while the field batteries were first given syces who led the teams on foot, and later were given syce drivers who rode their horses (Governor-General's orders of 2nd September 1824). The syce drivers were, however, not enlisted as part of the battery but were formed into lettered companies, one of such units being allotted to each field battery equipment.

The number of field batteries was gradually increased as time went on but most of them had bullock draught and syce drivers. In fact the bullock as an artillery draught animal did not altogether pass out of the Indian Service till after the Great War. After the Mutiny of 1857 it was decreed that Indian personnel should never again be permitted to act as drivers to field gun teams, and British drivers were introduced into the establishment. Later the need for economy brought about the present system whereby Indian enlisted soldiers of the Royal Artillery were trained as horse drivers for ammunition waggons.

It will be seen that as far as the artillery driver is concerned, India copied British methods as far as possible up till the post-Waterloo reorganisation. But the pernicious system of having a

battery's drivers organised in a separate unit of an "auxiliary corps" persisted long after it had been cast aside at Home. To-day the Indian soldier steps into the place vacated by the British horse driver and may be trusted to uphold the fine traditions handed over to him.

EDUCATION AND THE INDIAN ARMY—WHY, AND HOW, AND WHITHER ?

A PLEA FOR AN INDIAN ARMY EDUCATIONAL CORPS

By Major E. I. G. Richards, Army Educational Corps

PART I.—“WHY ?”

“Educational Training, Indian Army, 1932” states sonorously, “Educational training is that part of military training in which such of the mental and moral qualities of the soldier as will be of most use to him as a soldier and a member of the community are developed by means of instruction in, and supervised study of, selected educational subjects.”

The increasing complexity of the soldier's training demands a higher standard of education than is possessed by the raw material which enters the army. This is true of the British Army and, even more so of the Indian Army, which, while maintaining an equally high standard of training, has to work on less well educated material.

Indeed, the problem of illiteracy in India seems a permanent one. While secondary and university education provides more educated products than there are jobs for, primary education remains woefully inadequate. In India the total number of literates has increased in fifty years from 4.0 per cent. to 9.5 per cent.; this represents an additional literate 11 per cent. of the population every 100 years—a slow process.

Moreover, during the recent slump the numbers of boys in primary schools have actually decreased, the percentage of male scholars in 1928-29 being 7.49 per cent. of the male population and in 1933-34 7.05 per cent. But this is only part of the story. In England our six million scholars in elementary schools, will, with few exceptions, attain literacy. What happens in India?

“On an average only 21 per cent. of boys enrolled in Class I reach Class IV (when literacy may be anticipated) three years later.” That is, only one-fifth of the $7\frac{1}{4}$ million boys at school ever become literate, and of these it is estimated that 40 per cent. relapse into illiteracy within five years of leaving school.

To sum up. On the one hand the increasingly complex demands of modern war require a sound standard of literacy and education. On the other hand the educational system of India cannot, for generations, provide recruits of this standard. Education in the Indian Army is thus not a scholastic luxury, but a vital necessity.

What is the percentage of literacy among the recruits of the Indian Army?

The percentage of literate males in India as shown by the 1932 census is 15.6 per cent. It is improbable that the average for recruits to the Indian Army exceeds this, for the towns where literacy is highest provide comparatively few recruits. On the other hand there are many classes enlisting in the army where the percentage of literacy is exceedingly low.

Yet during the seven years of a sepoy's service this 85 per cent. illiteracy becomes not less than 90 per cent. of literacy. Half of those leaving attain to a standard comparable to the Middle School in India. About a sixth reach Secondary School standard.

This represents an enormous educational effort, one of the greatest unified movements, in fact, in adult education in the whole world. The progress attained is sometimes amazing. There are cases of sepoys completely unable to read or to write when enlisted who have attained the excellent level of a First-Class Certificate in two years. There is the record of a Pathan who joined the army, not only illiterate but ignorant of Urdu, and within 18 months had secured his "First," which is comparable to an almost illiterate Danish immigrant to England passing his Matriculation within that time. When one realises that Urdu is as much a foreign language to the average sepoy on enlistment as Italian to a Frenchman, and that he has to learn everything in a completely strange script, one stands amazed at this extraordinary cultural achievement of the Indian Army.

Considering that the whole system has been built up from A to Z in the last fourteen years, the speed of the movement is in itself remarkable enough. Figures, it has been said, prove nothing (mention this to your banker next time he accuses you of having an overdraft!), still they are a useful guide and, making every allowance, those below are a remarkable record of four years' progress.

Educational certificates held in the Indian Army in 1932 and 1936

		Specials.	1st.	2nd.	3rd.	Recruits tested and uncertificated.
1932						
Numbers	..	83	4,364	20,723	29,588	70,609
Percentage	..	·06	3·4	16·7	23·6	56·3
1936						
Numbers	..	441	8,000	27,764	41,209	64,809
Percentage	..	·31	5·62	19·51	29·02	45·54

This is an increase in four years of 410 per cent. for the highest class of certificate, of 65 per cent. for the next highest, 17 per cent. for the second class certificate, 22 per cent. for the third and a raising of the general standard of literacy by 8 per cent., which is equivalent to seventy years of progress by the general population of India. Surely this is something to be very proud of.

PART II.—“HOW ?”

The system of education in the Indian Army is too well known to require detailed description. Briefly, it advances from the very elementary stage of the Recruit's Certificate, through the Third, Second and First-Class Certificates to the Special Certificate, which is in English, and is more than equivalent to the Matriculation. In fact we have known several B.A.s fail for this examination.

In addition there are the First, Second and Third Class English Certificate examinations.

The main work of the educational personnel of the Indian Army consists in teaching some 150,000 troops to pass these various standards.

The Teaching of English

There are 225 languages in India not counting dialects. Some key is necessary to this portentous Tower of Babel—some common tongue. The one we have adopted from the Moguls is Urdu—the “camp language.” Hardly any recruits claim it as their mother-tongue. The form used in the army is called Roman Urdu; the graceful phonetic Persian script is replaced by an ungraceful, unphonetic Latin one, and much of the difficulty of teaching soldiers in the early stages is caused by the unfamiliarity of the symbols.

A question which arises in many minds is "Why Urdu?" Why not make English the *lingua franca* of the Indian Army? There is much to be said for this view, which is held by a number of thoughtful and intelligent officers. The Indian Army has to co-operate with British troops and one thing is certain and that is that "Thomas Atkins" will never learn proper Urdu. In the mix-up of a battle these two languages might be highly inconvenient. Again if heavy officer losses had to be replaced from the British Service, the language problem would arise again.

Also Urdu is a foreign tongue to a large proportion of the Indian Army, to the Maratha and all southerners, to the Gurkha and the Pathan, to many *Junglis* who know only their own patois; and even for the Punjabis there are many different words and new constructions to be learned. Then there are so few books printed in Roman Urdu that the sepoy has little chance of improving his education by reading; there is left him but the Training Manuals and the Fauj-i-Akbar—an inadequate cultural equipment. Besides English is the common tongue of educated India and a sepoy's chances in civil life would be much improved by a knowledge of the language. Most sepoys realise this and there is a very marked enthusiasm for learning English among them.

On the other hand opposite views are held by many equally thoughtful and intelligent officers—and the objections are very weighty. Firstly, it is harder for the sepoy to learn English than Urdu. Urdu is very much like all the Punjabi languages and its construction and words are far more like the non-Punjabi tongues than is English. Secondly, the officer will never really get to know his men on English alone; he must know an Indian language. Thirdly, it would be a very difficult matter to teach English to all the sepoys of a regiment and the time and transition would be particularly hard.

But is it possible to satisfy both these schools of thought? The writer considers that it is.

For both are at one on the desirability of sepoys learning English in as large numbers as possible and the writer considers that the difficulties of teaching English are exaggerated, and that a knowledge of English could be much extended without any great difficulty.

The sepoy in his ordinary work has to learn about 150 English words including some of the commonest. The specialist knows 250 words. Basic English claims that with a vocabulary of 850 words you can express anything you want to: novels have been written in basic. The ordinary villager only knows some 500 words. Would it be so hard then to organise a limited English vocabulary and a simplified grammar? Already most units have from 7 to 10 per cent. of sepoys who speak English, few falling below 45 per battalion. In the writer's opinion, with a definite policy and with an organised annual increase of English-speaking sepoys, it should be possible to have, in five years from its inauguration, about half of the Army speaking English well enough for general purposes. There are certain requirements to be fulfilled first. The first is that at least two instructors from the Belgaum Senior Instructors' Course per battalion or similar unit be provided; this will take about two to three years to do. The second is that every English-speaking sepoy should have an arm-band conspicuously marked "E," possibly in different colours for different grades. When the sepoy has that arm-band he should be encouraged to practise his English as much as possible. He should address his officers in English and speak English in barracks.

These measures will take time. There is nothing more wasteful in education than hurry, but they will mean that sufficient in the Indian Army will have learned English to obviate any difficulty of co-operation with British troops.

A really serious difficulty arises over the question of the time available. Will it be possible to find the time to teach both English and Urdu? This is the crux. A possible way out would be to have all educational certificates after the Third Class Roman Urdu Certificate taken either in English or in Urdu. Thus, the Second Class Certificate would incorporate the present Second Class English Certificate, until it would be possible to abolish all teaching in Roman Urdu after the Third Class Certificate.

This teaching of English is at present a very heavy strain on the educational organization. The British personnel of the A.E.C. are invaluable for the purpose, but even so their main work lies with the British Service and the time they can give to teaching sepoys is limited.

The Indian Cadet

This leads to the difficult problem of the supply of cadets of a suitable standard for the Indian Military Academy. Here education plays an important and, in fact, a vital part. Are the martial classes enlisting into the army to obtain their full opportunity of officering the Indian units of the future? It is highly desirable that they, the ideal material, should have such an opportunity. But the problem of education comes in very acutely. Teaching a class of sepoy aspirants for the Indian Military Academy is a revelation—keen, well-mannered, intelligent as they are, their lack of what one may call “background” is exceedingly noticeable. Compared with an English cadet his Indian opposite is very greatly handicapped.

One of the solutions is Kitchener College, Nowgong, another educational responsibility. It has had a very great success as a preliminary course for the Indian Military Academy, and now that the course is being extended to two years, this should be a considerable help.

But in addition much of the preliminary work must still be done in districts. There the best solution seems to be a central course ensuring that all Indian Military Academy candidates are collected where the most instructors are available. As a preparation for Nowgong such a course is essential.

The King George's Royal Indian Military Schools at Jhelum, Jullundur and Ajmer are schools for teaching the children of Indian officers and N.C.O.s and are another side of army education. There is a feeling that, well as they are run and successful as they are, they should be reorganised as Public Schools from whence the bulk of cadets of the Indian Army should eventually be supplied. This would be in every way excellent, but would be a very expensive thing to do really well.

Rural Reconstruction

In the last few years the Government of India has been making great efforts towards improving the village from within—a movement to which the term Rural Reconstruction has been given.

The soldier who lives under the very best conditions, sanitary, medical and educational, is too much inclined to revert to type when he returns to his village.

To avoid this it is necessary to instruct and to interest the soldier in the subject of village improvement during his actual service. Two objects must be kept in view—

1. Efficient instruction of the soldier during his service.
2. Some means of keeping the soldier up to this standard after his return to civil life.

Both these are essential but the second aim is the more difficult and the more important.

Though the looking after the soldier after he returns to the village is the more important matter, yet the teaching of methods of Rural Reconstruction in the village is hardly less so—and that should be an important phase of the work of army education. Before the cuts of 1922 an excellent course in agriculture was held for sepoy at Belgaum where modern methods of tillage and of dairying were demonstrated. This had to be abandoned owing to reasons of economy. It should be revived. Theoretical demonstration of rural uplift methods has not a tithe of the usefulness of practical teaching.

Mention of the school at Belgaum leads us to this, the last of the responsibilities of education in the army. In this school are trained the I.O.s and the N.C.O.s who will teach the army in the future. Altogether 360 are under training there for one year, 300 in the Junior Instructors' Course for those who will teach the sepoy in Urdu and 60 in the Senior Course. Through the needle's eye of Belgaum passes the whole thread of education in the Indian Army.

PART III—WHITHER ?

A plea for the formation of an Indian Army Educational Corps.

The following premises, which are fairly self-evident, have been stated:

1. Education is a necessity for the Indian Army.
2. The Indian Army realises this and has made one of the most remarkable advances in adult education that history records.

The responsibilities of the educational staff of the Indian Army are as follows:

1. The adult education of the entire Indian Army.
2. The teaching of English to the Indian Army.

3. The preparation of cadets for the Indian Military Academy both in districts and at Nowgong.
4. The staffing of the K.G.R.I.M. Schools.
5. The educational side of the Indian Military Academy.
6. The School of Education at Belgaum.
7. The teaching of Rural Reconstruction.

This represents an enormous task and it is worth while looking at the organization available for the purpose.

Organization

To be frank the present organization is inadequate for future progress. It has grown and lacks coherent design. It is insufficiently specialised.

There are—

- 11 officers (Establishment 13) who are earmarked for work with the Indian Army as a Continuous Service Cadre;
- 25 officers who are British Service officers whose tour of duty is five years and whose chief interests are with the British soldiers' education;
- 35 Indian officers who are detached from their units for educational duties and who are on the supernumerary list.

This is all the specialised organization. The duties of education in units are carried out by the educational jemadar who is seconded from his normal work for two to four years. He is helped by N.C.Os. All these are Belgaum trained.

After the war the formation of an Indian Army Educational Corps was attempted, but economy took a hand and the idea was knocked on the head; so the present organization grew rather than was designed. While it does its work quite well there is no doubt that to cope with increasing responsibilities it requires reorganization. To take the system bit by bit and to point out its weak spots is a thankless but necessary task.

1. Officers

As work has increased so has the number of officers in recent years been depleted. The establishment of officers originally designed to cope with the British Service only has never been enlarged to cope with the Indian Army.

In England there are 65 officers of the Army Educational Corps to deal with the education of 110,000 troops. In India 37

officers deal with 57,000 British and the 147,000 Indian troops. In 1929 the establishment was 47 officers which gave some 28 to districts and brigades—to-day there are only 14 officers in districts. One of the reasons for this is that six instructors for the Indian Military Academy have been found from the Army Educational Corps thus reducing the number available in districts. This was done at a time when economy was absolutely essential and can be well understood. The staff at Nowgong is also found from the Corps. The result is that it is getting more and more impossible for the education officer in a district to do all the supervision and administrative work he should do.

Often he has a district of anything up to 23,000 troops. In addition to his work with the Indian Army he has to supervise the education of British troops, prepare and correct examinations, supervise British children's schools, be in touch with units and inspect their education, himself to teach when necessary and to do a thousand and one other tasks. In addition, it must be remembered that of the fourteen officers in districts ten belong to the British Service and in their five years' tour they cannot be expected either to understand the psychology of the Indian or to know the language as well as can officers who spend their whole service in India.

The one Indian officer of the District Staff is completely occupied with teaching and supervising central classes and has in consequence little time to spare for other work almost equally important. This other work should include going round units and becoming thoroughly *au fait* with the educational state of that unit, assisting with regimental examinations, helping with the work of small units, co-ordinating instruction where needful, checking syllabuses and schemes of work, and doing all the major and minor jobs within his province.

The result of this shortage of staff is that there is not nearly enough supervision of the actual teaching done by unit educational jemadars and N.C.O.s who may, if unchecked, fall into bad habits of teaching.

The examination for Second and Third Class Certificates is run regimentally. Thus there is no common standard. The shortage of staff precludes the centralising of these examinations. Thus, while in the British Army, from Cape Comorin to Landi Kotal, there is a uniform standard of all examinations, in the

Indian Army the standard varies from unit to unit and from district to district. Thus little reliance can be placed on the unit figures of numbers of certificates as some units have a high, others a low, standard.

Then there are Assistant Instructors and Refresher Courses. The former are preparatory courses for Belgaum and ensure that practically every N.C.O. sent on a Belgaum Course has a certainty of doing well. There are usually three courses in the year each of from 20 to 30 students, each course lasting six weeks. But the staffing of these courses is a most difficult task and it is only by the kindness and help of units that instructors can be produced.

The latter are designed to furbish up the knowledge of those who have not been to Belgaum for some time and the same difficulty of staffing is experienced

The Educational Jemadar

In the British Service the W.O. or N.C.O. who corresponds to the educational jemadar is a professional teacher of the Army Educational Corps. In Indian units he is temporarily employed on the task. His primary interest lies in his work with the unit and not with education. If he is too long away from company, battery or squadron work he becomes rusty and useless. Thus he has not the time or inducement to become a really first-class teacher and to devote all his thought to education. In considering the applicants for the job of jemadar, the C.O. of the unit has to consider quite other factors than purely educational efficiency. The finest instructor, unless he is a good regimental I.O. as well, is useless to him. This system does not make for the best possible teachers.

2. The Teaching of English

There is a great and increasing demand for the teaching of English and an inadequate staff to deal with the problem. The only suitable instructors are personnel of the Army Educational Corps, who can be spared from the instruction of British troops, and army language teachers, who are very rarely adequate to the work.

It would be possible sometimes to secure British N.C.O.s to help in this task, but they cannot be expected to do a spare-time job for nothing and the funds for paying them are insufficient. Eventually the Senior Instructors' Course at Belgaum should provide sufficient instructors. But there is at present no means of

using these solely for teaching English and they are required by their units for other jobs.

The same shortage of instructors applies to the classes for Indian Army Special Certificates held in districts. It is most difficult to obtain sufficient instructors.

3. *Belgaum*

There are not sufficient officer instructors at Belgaum to carry out the work of a school of education ideally. There is one for the Senior Course of 60 and two for the Junior Course of 300. This is obviously not enough to carry on the important work of research as well as supervision. Yet research is essential where one is breaking new ground—and after all this education is very new ground. There should be separate officers for Citizenship and Rural Reconstruction particularly. There should be an exceptionally good linguist for Roman Urdu, an officer for mathematics and one for geography and map reading.

These criticisms of the present system are not intended as adverse comments on an organisation which, when all is said and done, works exceedingly well. Nevertheless the argument is not that the system is not good but that it could very easily be much better. And although adequate for its present tasks with a little strain, it does not provide for the inevitable increase and future development of education. In short the work has outstripped the organization.

There is only one satisfactory solution and that is an Indian Army Educational Corps.

The Indian Army Educational Corps

An Indian Army Educational Corps would cost comparatively little additionally provided the total establishment is restored to what it was in 1931 and the six instructors at the Indian Military Academy be in addition to the establishment instead of inclusive to it. The only other new expense would be for an educational jemadar for each brigade.

Establishment

Officers: The establishment would be—

- (1) Chief Inspector of Educational Training alternately of the British and of the Indian Service.

(2). British Service (Army Educational Corps):

Commands	...	2
Belgaum	...	3
I. M. A.	...	8
Nowgong	...	1
Districts	...	11
Total	...	<hr/> 25 <hr/>

(3). Indian Service (Indian Army Educational Corps):

Commands	...	2
Belgaum	...	6
K. G. R. I. M.	...	3
Districts	...	10
Total	...	<hr/> 21 <hr/>

This is an increase of eight officers on the present establishment. It is considered by the writer that both Nowgong and the Indian Military Academy are best staffed by instructors straight out from home, who would have the latest ideas on teaching their subject.

From his experience at Sandhurst he would suggest that the longer their tenure of these appointments the better, and that they do duty with these establishments for the whole of their five years tour.

This establishment allows each first-class district to have two officers, one Indian service and one British service, while each second-class district would have one officer. Kohat and Waziristan would be staffed by an officer of the Indian Army Educational Corps and the other five second-class districts would have officers of the British Army Educational Corps.

(4). Indian Ranks:

One subadar or risaldar for each first-class district.

One jemadar for each second-class district.

Establishment of I.O.s for schools as at present.

(5). 33 jemadars for brigades and brigade areas.

(6). One jemadar or havildar for each of the larger units.

One havildar or naik for each of the smaller units.

All Indian Army Educational Corps personnel to be able to teach English up to the 1st class standard.

The organization could be introduced very gradually as finance allowed.

This is put forward with a certain amount of diffidence as the writer realises that there are many difficulties involved. Nevertheless it is the result of much thought and experience and of conversations with officers of the Indian Army. It has probably many defects but it does give a basis for that expansion of educational organization so badly needed at present. The achievement so far has been so great that it is worth any trouble to ensure its future development.

FROZEN MEAT FOR INDIAN TROOPS

BY MAJOR A. E. SWANN, R.I.A.S.C.

The ration to which Indian troops are at present entitled in peace includes no issue of meat. The problem of meat supply to Indian troops, therefore, is limited to the devising of such arrangements in peace as will ensure the delivery of adequate and regular supplies to the troops in war.

The present system under which live animals are sent up to the troops and slaughtered in the field has many disadvantages. It is unhygienic. It requires a great deal of transport in addition to feeding and watering arrangements on the Lines of Communication and this causes congestion and impedes mobility. The quality of the meat is impaired by the long journey immediately before slaughter, losses are heavy and the disposal of offal is difficult. In a war of movement the difficulties inherent in the system would be such that the provision of regular supplies could scarcely be regarded as assured. Even if centralized slaughtering were resorted to at railhead the forward distribution of freshly killed meat would be a matter of great difficulty in the hot weather and the supply of meat to troops in an edible condition could hardly be guaranteed.

The solution obviously lies in the centralized slaughter and freezing of mutton in one or more abattoirs, located where abundant supplies of prime sheep and goats are available. From these abattoirs, supplies of frozen mutton would be transported to cold storage depots capable of holding the necessary war reserve stocks and thence daily issues could be made to troops in the field and on the Lines of Communication.

The problem of the supply of beef to British troops is at present being solved in this manner by means of the abattoir-cold storage scheme, which has been described in the article "Cold Storage for India" in the January number of this Journal.

This scheme, which has been devised as the first step in the modernization of the supply service of the Army in India, is to provide for a central beef abattoir for British troops at Lahore, linked up with a series of cold storage depots in the principal military stations by a fleet of modern refrigerated rail and road

vehicles. The cold storage depots in the frontier areas will each provide space in separate chambers for the war reserve requirements of frozen mutton for Hindus and Mohammedans, and the arrangements to be made for refrigerated transport will include the necessary vehicles for the conveyance of Indian troops' meat in war.

When the scheme was first considered it was proposed to locate separate Hindu and Mohammedan abattoirs in close proximity to the central beef abattoir; but this proposal was subsequently dropped, mainly because the best beef and mutton areas do not coincide and it was realized that the mutton abattoirs would be more suitably located in some such area as Baluchistan or the North West Frontier Province where the quality of the mutton is far superior to that of the areas further south.

So marked is this difference in quality that if refrigeration facilities were readily available it was felt that mutton from the North must, sooner or later, find its way down to the markets of the large cities of the Indian plains, where, providing its price were not too high, it should have little difficulty in holding its own against the inferior locally killed product.

At first this may sound a little fantastic when applied to India, in view of the insistence of orthodox Indians upon eating only freshly killed meat, slaughtered in accordance with individual religious requirements. But the religious and caste susceptibilities could be protected by careful arrangements, and when this had been accomplished there would only remain the necessity that the Indian consumer should be educated into the acceptance of frozen meat which he was satisfied had been slaughtered in accordance with the requirements of the established custom of his particular religion.

When one considers the changes which have come about in India within the last decade or so, and the laxity of many of the present generation in matters which would have been sacrosanct to their parents and grandparents, the eating of frozen mutton begins to sound a little less of an impossibility. If that mutton can be produced very cheaply, and, once tasted, is found to be far superior to the local leathery joint, one can soon begin to visualize the Indian eating it almost as readily as he will purchase an ice-cream or a highly coloured drink from the street vendor in Bombay to-day, or puff a foreign made cigarette.

When the problem of the supply of frozen mutton for Indian troops in war was approached in the light of the above reasoning, there seemed room for hope that commercial interests might realize the feasibility of exploiting the opportunity which the first-class mutton from the north of India appeared to offer. It was thought that such commercial development on a large scale might still lie in the not quite immediate future, but that, with the development of refrigeration facilities in storage and transport the demand for an improved supply of mutton in the large cities would be certain to make itself felt; and thus, perhaps from quite a small beginning, the industry would steadily grow and eventually flourish.

The prospects were brightened by the fact that modern sheep or goat abattoirs return handsome dividends upon the capital invested in them, for the many by-products of slaughter, such as skins, horn and hoof meal, tallow, bone and meat meal and dried blood command a ready sale and enable the meat to be produced practically free of cost, so that it can compete on very favourable terms, even after storage and transportation charges have been met, with inferior locally killed meat, the by-products from which have not been scientifically dealt with in bulk.

The possibilities awaiting commercial enterprise are not necessarily limited to the modest demands of a gradually expanding Indian market. The quality of the frontier sheep being what it is there appears no valid reason why an Indian industry in frozen mutton should not enter the international market, where it would be well placed to compete with existing supplies from remote countries where the standard of living is much higher.

These were arguments which could not fail to appeal to commerce, as they did indeed to the army authorities. But the army was not free to invade the realm of commerce in order to develop this new industry. The matter was, after all, entirely different from the question of beef supply, which was to be solved by the inauguration of a military abattoir. For beef there was no commercial market worth mentioning in India, and Indian sentiment would not be likely to permit the commercialization of the sacred cow by means of a beef export trade; the army was, therefore, free to deal with its own problem, and its regular requirements in peace and war were such that a beef abattoir could be operated as an economic unit. For mutton there was a large potential civil

market whereas the army demands were negligible in peace; a mutton abattoir for purely military requirements could not, therefore, have been operated profitably by the army.

The obvious solution lay in the stimulation of commercial effort along the lines desired by the army, and the encouragement of the *early* development of the industry. If it could be brought into existence, on even a modest scale, in the near future the problem of the army mutton supply in war would be solved. It would be well worth while, therefore, to assist development by means of a subsidy, in order to secure this important item of war insurance. The subsidy could take the form of a guaranteed "off-take" of frozen mutton in peace from which issues could be made to hospitals and the remainder could be disposed of by payment issues, or, if necessary, could be substituted to a limited extent for the free issues of beef to British troops as an occasional variation of diet. In this way the subsidy could be provided at very small cost to army funds.

There are already encouraging signs that the possibilities of the frozen mutton trade in India are beginning to be realized and there are grounds for hope that at least one mutton abattoir may develop in the near future, from which the army supplies for Northern India will be obtainable. The problem of the war supply of frozen mutton for Indian troops is thus nearing solution, for the necessary separate transportation and cold storage facilities are already in process of being provided, concurrently with the arrangements to be made for the distribution of beef for British troops from the Lahore abattoir.

As an additional safeguard, however, it has been decided to arrange for the provision of extra refrigerating machinery in the cold store at Quetta, so that the daily kill of mutton for troops based on that area could be frozen, stored and distributed from Quetta, after being slaughtered under Royal Indian Army Service Corps arrangements.

The problem of supply and distribution is thus about to be solved, and the only remaining difficulty is to ensure that frozen meat will be acceptable to Indian troops without any offence to religious or caste susceptibilities. This is sometimes referred to as a problem which may well prove insuperable, but there appear to be few grounds to justify such an attitude of pessimism. On active service Indian troops have in the past shown themselves very

reasonable in matters of this nature, and both during the Great War in France and more recently on the Indian frontier they have eaten meat which has been centrally slaughtered in rear and sent forward to the troops for consumption. Their *ghi* ration—a very important article in the Indian diet and one about which the average sepoy is somewhat particular—is centrally dealt with at the Army Ghi Heating Centre at Agra and is readily accepted by Indian troops, because it is realized that the utmost is being done to ensure that the article supplied to them shall be pure and of good quality. Shakapara biscuits provide a further example of the reasonableness of the Indian soldier in matters concerning his food supply in war, and a proof that if things are explained to him and he is provided with the means of knowing that his religious scruples are being fully respected, he will not demur at arrangements which aim at giving him a more palatable ration.

Needless to say, if and when frozen meat is prepared for the Indian soldier's consumption, every possible precaution will be taken to safeguard his interests and to ensure that he realizes they are being so safeguarded. The arrangements for *halal* and *jhatka* meat will be entirely separate throughout, and the two different categories of meat will never come into contact with each other at any stage. This can be easily assured by the provision of separate slaughter halls, chill rooms, freezing rooms, storage chambers, insulated vehicles and containers, and by use of distinctive wrappings and labels to differentiate between Hindu and Mohammedan meat. The arrangements throughout would be supervised by representatives of the troops in conformity with the requirements of units, so that the troops would know that the meat they were eating had been properly prepared in accordance with their own custom, and would realize that what they were being offered was precisely the same article as would have been produced under other circumstances by their company cooks, kept fresh by the simple method of keeping it cold. If this were properly explained to them it should be no more objectionable—and no less gratifying—than the consumption of an iced drink on a hot day.

Much can assuredly be done by careful explanation to Indian officers and N.C.O.s who are never unreasonable when a subject is lucidly and logically explained and who will pass on the explana-

tion to the rank and file. But as the "proof of the pudding" lies in the eating, the explanations must be followed up by demonstrations in peace, and for this purpose the commercial abattoirs will be invaluable. It will be a simple matter to arrange for any unit which desires to do so to try out the system in peace time. If, as seems not unlikely, troops in plains' stations find that the frozen mutton is to their liking, the introduction of a small meat ration in peace—perhaps as a voluntary alternative to a portion of the ghi ration—should not be beyond the bounds of possibility.

Officers of Indian units can do much to prepare the ground for the new scheme by pointing out that its main objects are to improve the quality of the ration and to render its delivery in war more certain, and by explaining the care which will be taken to safeguard religious and caste requirements.* The precedents provided by the Great War will serve to illustrate that the existing system has already proved itself unreliable in war, whilst the Ghi Heating Centre and the Shakapara biscuit will provide analogies of the complete innocuousness of the proposed new system.

*Arrangements were made for the feeding of Indian troops of the Coronation Contingent on frozen meat during the period of the voyage. Separate arrangements were made for *halal* and *jhatka* meat, and for supervision by unit representatives.

OBJECT ! !

By MAJOR M. R. ROBERTS, 10TH GURKHA RIFLES

To begin with let me assure those who have lately attended the Senior Officers' School that this is not a dissertation on the difference between "object" and "objective," and I will add a further assurance for the benefit of harassed commanding officers that it is not a treatise on the hunting cry of the local audit officer.

A good article needs no explanation. I am going to start this with an explanation for even writing it, so that its object may be clear from the outset to anyone who may be tempted to read it.

At the Senior Officers' School, great, and I am afraid it must be admitted necessary, emphasis is laid on the difference between "object" and "objective." Now from the time we start studying the art of war, we are told that we cannot evolve a sound plan without having first appreciated the situation. Training Regulations tells us that the first thing we must do when making an appreciation is to decide on the "object." Field Service Regulations, Vol. III, 12, 1, contains the following words: "Therefore the plan for battle . . . is likely to spell the success or failure of the whole operation." In brief, success is dependent on the plan.

A sound plan is evolved from a good appreciation.

A good appreciation is based on a clear object. The connection between success and a clear object is obvious, and yet it is found necessary to teach officers with twenty to twenty-two years' service the meaning of the word "object." Surely there is something wrong? Everyone from the section leader upwards has to make plans, and, therefore, should be able to make rapid and sound appreciations.

In almost any T. E. W. T. when an appreciation is called for, the point over which there is usually the greatest divergence of opinion is the object. If one takes the trouble to analyse the various objects put forward, one is forced to the conclusion that a vague or incorrect object is often the result of ignorance, or at least an imperfect conception, of the meaning of the word. To my mind the deduction from this is that there is something wrong, or at least confusing, about the word itself; particularly to the young officer and the non-commissioned officer, and I suggest it is

possible to find a word which will give a very much clearer idea of what is wanted.

One of the most profound students of the art of war in modern times, the late Marshal Foch, in his lectures and writings on war, continually used the phrase, "What is the problem?" The object in an appreciation should be a clear and concise statement of the problem which has to be solved, and I suggest that no better word can be found than PROBLEM.

In case the criticism is made that the changing of a word will make little difference, I will relate an incident from my own personal experience which will illustrate the difference it can make. A junior officer had given an academically excellent order for an attack, but it was unsound because his line of advance took his troops into an area which would have forced machine-guns, supporting the advance, to stop firing. He was asked what his object was, and replied promptly, "To clear the enemy off that ridge," which was the objective given him. It was no use saying that that was not his object, as it might almost have led to a brief and insubordinate reply, and the question was, therefore, put in a different way, as follows: "What is the problem confronting you now at this moment?" After a moment's thought he replied, "To get my men from here to that ridge with as few casualties as possible." That set him thinking and he very soon realised that his line of advance was going to put his troops in danger of being shot by his own machine-guns, or depriving him of their help.

I am not putting forward a claim that the changing of one word is going to revolutionise the junior leader's ideas on appreciations, but I do claim that it will simplify the process. Having simplified the process we must instil the habit of spending the first few minutes of the time allowed for reconnaissance and issue of orders in making a rapid mental appreciation. Much time is spent in teaching the proper sequence in issuing orders, but it is doubtful if enough time is spent in teaching junior leaders *how to evolve a sound plan, and perhaps the reason lies in the fact that our war manuals do not rub in the necessity for making appreciations.*

Appreciations are dealt with in Training Regulations alone, and it is perhaps not surprising that junior officers and non-commissioned officers are apt to look on them as an academic

exercise indulged in by generals for the edification of their staff, or set by examiners to see whether the candidate knows how to do it, instead of as a practical means of evolving a sound plan. As a result they are apt to plunge straight into framing orders as soon as they are given their task, hoping that the plan in their mind is an inspiration straight from above.

Not many years ago I heard a very distinguished soldier stress at a conference the danger of "inspirations" and the necessity for seeking information, and when it is obtained, thinking hard and rationally. "There are many," he said, "who, when faced with having to make a plan, 'hope for a sign;' my experience is, gentlemen, that on these occasions the Almighty is singularly reticent."

As far as Indian ranks are concerned the situation is much worse, as there is no mention of appreciations in any Roman Urdu manual. A translation of the section on appreciations in Training Regulations would not meet the case as it would be above the heads of the majority. What is wanted is a supplement to the Roman Urdu war manual of each arm, explaining the process of making simple appreciations and the framing of orders. It is to be hoped that the Secretary of the Board of Examiners can find a Hindi or Urdu word that will convey the meaning of the word appreciation; that alone would simplify to a marked degree the task of teaching tactics to Indian ranks.

Summarised, my plea is this—

The transfer of the section on appreciations from Training Regulations to Field Service Regulations, Vol. II.

The substitution of the word "Problem" for "Object."

The issue of a Roman Urdu supplement to the war manual of each arm, giving a very simple exposition of the process of making an appreciation and the framing of orders.

THE FINAL PHASE OF THE MESOPOTAMIA CAMPAIGN— 12TH MARCH 1917 TO THE ARMISTICE

BY LIEUT.-COLONEL J. E. SHEARER, M.C., 1/15TH PUNJAB REGIMENT

1. *Introduction*

These notes cover one of the Military History periods set for the Promotion Examinations from October 1937 to October 1938. They complete a series of lectures on the Mesopotamia Campaign which have already been published by the United Service Institution of India in their Journals for July and October 1934 and October 1936.

2. *Topographical, Climatic and Tactical Peculiarities of the Theatre of Operations.*

In the opening pages of the first of those lectures, and in Chapters VI and VII of the Staff College "Critical Study of the Campaign in Mesopotamia up to April 1917," the examination candidate will get some idea of the peculiar campaigning conditions in Lower Mesopotamia. It is very necessary for students of this campaign to get a good idea of these peculiar conditions or they cannot hope to understand the operations. But a glance at Sketch Map No. 1 will show that the topography of Upper Mesopotamia and of Persia varies very considerably from that of Lower Mesopotamia. The conditions on the TIGRIS between BAGHDAD and TEKRI, and on the EUPHRATES, still remain more or less the same as in Lower Mesopotamia, but the JABAL HAMRIN consists of a wild tangle of bare rocky hills and nullahs just as forbidding as any on the North-West Frontier of India. Kurdistan is a very mountainous country. In Persia, the road QASR-I-SHIRIN-KERMANSHAH-HAMADAN-KASVIN runs along a chain of broad, high, fertile valleys covered in snow in winter, bordered on each side by a tangled mass of mountains, and cut into approximately 20 miles lengths by a succession of rugged mountain passes. From KASVIN to ENZELI the road runs mostly down a steep, thickly-wooded river gorge (ideal for the ambushes laid by the local JANGALI tribesmen), and finally finishes in low-lying rice fields and sand dunes on the shores of the CASPIAN SEA. At BAKU the terrain consists of rolling downs, well studded by oil-wells, stoutly-built workmen's tenements and many very large, oil-covered, undrinkable lakes (*i.e.* good country for defence).

We must remember these very varying conditions of terrain and climate as our study takes us from one part to another of the very large area covered by these last stages of the Mesopotamia Campaign.

The Turks, as usual, fought with the utmost courage and determination, but luckily for us, the tribesmen in Kurdistan and Persia were of inferior quality to the Pathans of the North-West Frontier of India.

3. *General Situation on Capture of BAGHDAD on 11th March 1917*

When General MAUDE entered BAGHDAD on 11th March 1917 the situation was as follows:

(a) *The British Force in the BAGHDAD area (total 45,000 Effective Rifles and Sabres) consisted of:*

- (i) The Cavalry Division (6th and 7th Indian Cavalry Brigades).
- (ii) 1st Corps (3rd and 7th Indian Divisions).
- (iii) 3rd Corps (13th British and 14th Indian Divisions).

There was a well-organized and efficient L. of C. to BASRAH, but the Tigris Force had somewhat outrun its communications in its rapid advance from the KUT-AL-AMARA area. General MAUDE had only one squadron of aircraft which was badly in need of repair. No good or accurate maps were available of the country round BAGHDAD so these factors necessarily delayed the operations considerably at first.

(b) *The British EUPHRATES Force consisted of:*

The 15th Indian Division about NASIRIYA, some hundreds of miles from BAGHDAD.

(c) *The Russians:*

The Russian Revolution had just started, but the C.I.G.S. was unaware up to this time of its far-reaching effects, and was still counting upon Russian co-operation in helping General MAUDE to secure the BAGHDAD-VILAYAT rapidly.

The Russians had had great successes in the CAUCASUS and: CHERNOBUZOFF's 7th Caucasian Corps was at BANE (in the north-east portion of Sketch Map No. 1). It was snowed up there but as soon as the snow melted,

was to be reinforced by two cavalry divisions and was to move on MOSUL *via* ROWANDUZ.

BARATOFF'S Corps, containing a large proportion of COSSACK Cavalry, was at KERMANSHAH slowly but steadily pushing the Turkish XIIIth Corps along the road QASR-I-SHIRIN-KHANIQIN.

¶(d) *The Turks:*

(i) KHALIL PASHA'S Headquarters had moved to SAMARRA on the night of 10th/11th March.

(ii) XVIIIth Corps was retreating slowly up both banks of the TIGRIS, covering the withdrawal of stores. The 51st and 52nd Divisions (which included the remnants of the 4th and 45th Divisions) were holding a position on the right bank of the Tigris at MUSHAHIDA with 5,000 rifles and 26 guns.

The 14th Division and 37th Regiment on the left bank of the Tigris had split up, and a portion had retired on BAQUBA to link up with the XIIIth Corps.

The Turks were reported to be feverishly reinforcing the XVIIIth Corps, the leading Regiment of the 53rd Division being reported already *en route* down the Tigris.

¶(iii) XIIIth Corps, commanded by the very able ALI IHSAN (strength 800 sabres, 7,500 rifles, 1,500 Levies and 50 guns), was retiring with the 2nd Division, believed to be in touch with the Russians on the PAI TAQ PASS, and the 6th Division about QASR-I-SHIRIN.

ALI IHSAN hoped to rejoin KHALIL PASHA'S 6th Army near MOSUL, probably *via* KIRKUK, and had already sent a flank guard to BAQUBA to co-operate with the detachment of the XVIIIth Corps, mentioned above, to cover his crossing of the DIYALA River at QIZIL ROBAT.

¶(iv) The small Turkish Euphrates Force was withdrawing at full speed up that river.

General MAUDE, therefore, was considerably superior in number to any one of the Turkish detachments, and was on interior lines to them. With the help of the Russians he had every hope of destroying the Turkish

XIIIth Corps by driving it into the Russians whom he was led to believe would soon capture MOSUL.

As will be seen, General MAUDE acted with as much vigour and skill as the supply and transport situation would allow, but much valuable time and effort was wasted waiting for the Russians to co-operate, before the C.I.G.S. and General MAUDE realized that the Revolution had entirely broken the reliability of the Russian armies, and that their co-operation could no longer be counted upon at all.

4. *General MAUDE'S Task*

The orders which General MAUDE had received were to establish British influence in the BAGHDAD VILAYAT subject to the security of his force and the capacity of his communications. He had captured BAGHDAD and thus raised British prestige immensely in Afghanistan, Persia, Mesopotamia and all other Arab countries, but holding BAGHDAD against the determined Turkish counter-attacks which were to be expected was not a simple matter. Moreover, the flood season was approaching, so, unless he had control of the river bunds on the Tigris and Euphrates, the whole country round BAGHDAD could be flooded by the Turks, thus rendering BAGHDAD untenable.

General MAUDE'S immediate objects were, therefore—

- (i) To control the bunds of the Tigris and Euphrates.
- (ii) To drive the Turkish XVIIIth Corps out of the BAGHDAD VILAYAT.
- (iii) In co-operation with the Russians, to destroy the Turkish XIIIth Corps.
- (iv) To assist the 7th Russian Caucasus Corps to establish itself on the Tigris at MOSUL.

5. *Brief Outline of Operations for Consolidation of BAGHDAD. (14th March to 30th April 1917.) (Vide Sketch Map No. 1).*

These operations are at first somewhat difficult to understand as they were being carried out simultaneously on four fronts, so I shall give you a brief outline of them before describing any of them in detail.

(a) *Euphrates Front*

The Euphrates is on a higher level than BAGHDAD, so the whole country south of Lake AQARQUF can be flooded:

and communication between BAGHDAD and FALLUJA rendered impassable by breaking the sluices at the head of the SAKHLAWIYA Canal. On 18th March, the 7th Infantry Brigade Group (3rd Indian Division) moved to FALLUJA *via* NUKHTA in order to prevent the Turks cutting the river bunds at SAKHLAWIYA. They arrived on 20th March after little opposition to find the bunds already cut, too badly for repair. The Brigade then remained at FALLUJA holding a bridgehead across the Euphrates there.

(b) Tigris Right Bank

- (i) 13th to 17th March. 1st Corps (less 3rd Indian Division) captured MUSHAHIDA R.S. after stiff fighting. 21st Indian Infantry Brigade remained in MUSHAHIDA area to safeguard the river bunds there and the rest of the force returned to BAGHDAD.
- (ii) 5th to 8th April. FANE'S Column (7th Indian Division Group) captured the BALAD area after stiff fighting and constructed a pontoon bridge across the Tigris at SINIJA, near BALAD.
- (iii) 20th to 23rd April. General COBBE, G.O.C., 1st Corps (with the 7th Indian Division, 8th Indian Infantry Brigade and CASSELS Cavalry Brigade), captured ISTABULAT and SAMARRA R.S., and much stores and railway rolling-stock, after very determined fighting with the Turkish rear guards.

General COBBE then moved the bridge from SINIJA to SAMARRA.

(c) Area between Tigris and Diyala Rivers

- (i) 13th to 25th March. The Cavalry Division gained contact with the Turkish XIIIth Corps at DELLIL ABBAS, supported by the 40th Infantry Brigade in DILTAWA area.

Meanwhile the remainder of the 13th Division concentrated under cover of the 40th Infantry Brigade.

- (ii) 29th March to 5th April. MARSHALL'S Column (13th Division plus 35th Indian Infantry Brigade and Cavalry Division) pushed the Turkish XVIIIth Corps through DUQMA to behind the ADHAIM river; and then returned immediately to the DILTAWA area to

meet the Turkish XIIIth Corps who were advancing down the KHALIS Canal to relieve MARSHALL'S pressure on the ADHAIM.

(iii) *7th to 18th April.* MARSHALL'S Column pushed the Turkish XIIIth Corps back to DELLI ABBAS, and left CAYLEY with the 39th and 40th Infantry Brigades and the Cavalry Division to contain the Turks there. General MARSHALL then returned to the ADHAIM, where about one-third of the Turkish XVIIIth Corps were in a strong position on the far bank. He defeated this detachment decisively and thus cleared the left bank of the Tigris of Turks.

(iv) *23rd to 30th April.* MARSHALL turned northwards to meet the Turkish XIIIth Corps, who were advancing down the ADHAIM and drove them back to BAND-I-ADHAIM. The Turks then withdrew north of KIFRI.

(d) *Eastern Bank of River Diyala*

(i) *16th to 23rd March.* KEARY'S Column (3rd Indian Division less 7th Indian Infantry Brigade) occupied BAQUBA and bridged the DIYALA there, then pushed on to SHAHRABAN, but was held up by the Turks in position in the JABAL HAMRIN.

(ii) *25th March.* Attack on JABAL HAMRIN failed.

(iii) *1st April.* 8th Indian Infantry Brigade occupied QIZIL ROBAT and gained contact with the Russians, but failed to prevent the XIIIth Turkish Corps from crossing the DIYALA at QIZIL ROBAT and escaping. KEARY'S Column consequently returned to BAGHDAD on 5th April.

(e) *General Strategic Lessons*

By 30th April the climate had become very hot indeed so active operations died down for some months, but by his prompt and energetic exploitation of his interior lines General MAUDE had quickly rendered all the approaches to BAGHDAD safe, in spite of the promised Russian help having proved a broken reed.

The outstanding strategic lessons of this period are—

(i) The great skill and grit displayed throughout by ALI IHSAN. His weak XIIIth Corps seemed to be doomed to destruction, but by keeping up a bold offensive with his flank-guard against Generals MARSHALL and

KEARY, and with his rear-guard against the Russians he successfully passed his Corps across the DIYALA and escaped. At the same time he managed to carry out two offensives to try to relieve the pressure on the Turkish detachment on the ADHAIM.

- (ii) General MARSHALL'S skilful use of his interior position between the KHALIS Canal and the ADHAIM for surprise strokes in either direction is also worthy of special study; as was also his very skilful crossing of the ADHAIM on 18th April, with little loss to himself and the almost complete destruction of the enemy.

6. *The Capture of FALLUJA*

This operation is of little interest, as there was practically no fighting. The easiest "cure" for the broken bunds at SAKHLAWAYA would have been ourselves to open the river bunds higher up and flood the Lake HABBANIYA area, but this was not done as it would have increased the hostility of the local Arabs whom it was hoped to pacify. These tribes did come to terms after a month's desultory fighting. No real harm was done, however, as the 7th Indian Infantry Brigade succeeded in keeping the BAGHDAD-FALLUJA road and the light railway to MUFRAZ Post open by constructing new bunds north of NUKHTA.

7. *Operations on Right Bank of Tigris*

I have no time to describe these operations in detail as they were the usual Mesopotamian type of fighting, with all the difficulties of mirage, dust-storms and lack of maps. As usual, the Turks fought with great determination and made many fierce counter-attacks. It was only the great bravery and determination of our troops under the most trying conditions, combined with a dashing charge at the psychological moment by CASSELS' Cavalry Brigade, which gained success.

The capture of SAMARRA and the construction of a bridge there gave General MAUDE a good outpost for the defence of BAGHDAD. The railway enabled reinforcements to be sent to SAMARRA quickly if necessary, and the bridge made it possible rapidly to outflank any future Turkish counter-attacks down the ADHAIM.

8. *Operations of KEARY'S Column east of River DIYALA (vide Sketch Maps Nos. 1 and 2).*

The above operations were necessary to safeguard BAGHDAD from inundations. We will now turn to General MAUDE'S main immediate strategic object, which was to co-operate with

BARATOFF and prevent the Turkish XIIIth Corps crossing the DIYALA at QIZIL ROBAT.

It is easy for us to criticise, as we now know the real facts, but the "picture" which presented itself to General MAUDE at the time was very far from the truth. The repeated telegraphic instructions which he received from the C.I.G.S. still counted on powerful and active help from the Russians, and still instructed him to base his plans on co-operation with them. General MAUDE had great difficulty in getting into communication with BARATOFF, and it was not until after ALI IHSAN'S Corps had escaped across the DIYALA that it was really discovered that the Russians could no longer be relied on for any help at all. Moreover, the only maps available were inaccurate small-scale ones which were useless for tactical purposes. It was on this inaccurate data that General MAUDE based his orders to General KEARY, which were—

- (i) To defeat the enemy wherever met.
- (ii) To prevent him from crossing the DIYALA and escaping towards KIFRI; and
- (iii) To drive him back on the Russians advancing from the PAI TAQ PASS.

On the 14th March a small party of infantry from the 14th Division moved to BAQUBA in Ford vans. They found the bridge there destroyed and the far bank of the DIYALA held by Turks. KEARY'S Column, consisting of the 3rd Indian Division (less the 7th Indian Infantry Brigade), and the 7th Cavalry Brigade, then moved to BAQUBA, where they skilfully forced the DIYALA by means of a feint, and constructed a fresh bridge at BAQUBA. But they were again held up by the MAHRUT Canal, near SHAHRABAN, where the bridge had also been destroyed. (The main canals in this area of operations averaged only about 20 yards in width, but had a current running like a mill-race; and there were so many of them that it was difficult to obtain sufficient bridging material for them all.)

At this stage the 7th Cavalry Brigade was withdrawn by General MAUDE for operations at DELLI ABBAS, leaving only the 13th Lancers with KEARY'S Column.

On 23rd March the Turks evacuated SHAHRABAN, and KEARY'S Column pursued them to the RUZ Canal, behind which the enemy were found holding a strong and well-prepared position in the JABAL HAMRIN hills astride the QIZIL-ROBAT road.

9. *First Battle of JABAL HAMRIN, 23rd to 25th March, 1917*
(*vide Sketch Map No. 21*).

This battle is interesting and is well worth studying in detail as it is an example of mountain warfare against a modern enemy armed similarly to ourselves, and assisted by tribesmen. It is easy to be wise after the event, but many mistakes were made, from the study of which useful lessons can be learnt.

Briefly, the narrative of the battle is as follows:

On 23rd March General KEARY hesitated to attack because of the obvious strength of the Turkish position, which aeroplane reconnaissance had proved to be well-prepared and strongly held. He was, however, peremptorily ordered by General MAUDE to attack the Turkish left flank and push the enemy into the DIYALA.

In spite of the fact that the Turks could observe all our movements, General KEARY focussed the enemy's attention upon his intended line of attack by sending the 13th Lancers and mounted reconnaissance parties of the 9th Infantry Brigade out on that flank in broad daylight. It was discovered that the HARUNIYA canal would have to be bridged, but that the Ruz canal was dry and could be ramped.

The 9th Infantry Brigade then did a night march on the night of 23rd/24th March only to find that the Turks had meanwhile flooded the Ruz canal, bridging material for which had not been brought. But instead of the Brigade being brought back again in the dark and concealed, they spent all day on the 24th March between the two canals, while the Ruz canal was being bridged in full daylight.

On the following night the 9th Brigade crossed the second bridge, and made another night march and attacked at dawn. But partly owing to the attack being no surprise to the Turks, and partly through the Brigade having inclined too far to the left during the night march, and so failing to get round the Turks' flank, the attack was a costly failure, and General KEARY had the greatest difficulty in extricating the 9th Infantry Brigade at all when the Turks counter-attacked.

There was no adequate artillery support during the battle as the bridge broke and the artillery could not cross the Ruz canal.

This battle is an admirable example of the danger of attacking a properly-equipped and prepared modern enemy in mountain warfare when surprise has not been attained.

10. *Escape of Turkish XIIIth Corps across the DIYALA at QIZIL ROBAT*

On the following day, 26th March, the Turks withdrew, followed by the 8th Infantry Brigade, which reached QIZIL ROBAT on the 1st April after the last of the Turks had safely crossed the DIYALA there. On the same date the Russians also reached QIZIL ROBAT.

These operations are an excellent example of skilful rear-guard work by ALI IHSAN. He held up the Russians at the PAI TAQ PASS with two battalions only while he withdrew his 2nd Division and Corps Troop across the DIYALA. Meanwhile he delayed the British with his 6th Division by holding a series of positions at BAQUBA, SHAHRABAN and the JABAL HAMRIN, and after having inflicted a reverse on us at the latter place withdrew this rear-guard safely also.

11. *Operations of MARSHALL'S Column between the Tigris and DIYALA Rivers.*

As you will remember from the outline which I gave you of the complicated moves of General MAUDE's forces at this time, while KEARY'S Column was operating at BAQUBA and fighting the first battle of JABAL HAMRIN, General MAUDE sent the Cavalry Division to DELLI ABBAS, supported by the 40th Infantry Brigade to DILTAWA, to cover the concentration of MARSHALL'S Column (13th Division, 35th Indian Infantry Brigade and CASSELS' Cavalry Brigade).

On 29th March General MARSHALL commenced his attack on the XVIIIth Turkish Corps and by the 5th April had pushed them across the ADHAIM near its junction with the Tigris.

Meanwhile ALI IHSAN advanced down the KHALIS Canal to help the XVIIIth Corps. General MARSHALL then left the 38th Infantry Brigade to contain the Turks on the ADHAIM and did a night march eastwards. At dawn, on 11th April, both sides surprised each other, as both had been night marching, and a very determined encounter battle was fought about half way between DELLI ABBAS and DILTAWA. Fighting continued under extremely trying conditions of heat and thirst until the 15th April, by which date this Turkish attack had been pushed back to the JABAL HAMRIN.

General MARSHALL then left General CAYLEY with the Cavalry Division and two Infantry Brigades to contain the Turkish XIIIth

Corps on the KHALIS Canal (where ALI IHSAN made yet another attempt of advance), and returned with the rest of his force to the mouth of the ADHAIM, which he crossed on 18th April, and practically destroyed the Turks there.

12. *Crossing of River ADHAIM on the night of 17th/18th April 1917 (vide Sketch Map No. 3).*

This is a very interesting little fight and is an admirable example of the correct exploitation of surprise in carrying out an opposed river crossing.

The river was at that time shallow and narrow, but had a treacherous bottom and so could only be crossed at the fords. It meandered about in a dry bed some 2,000 yards wide with steep cliffs on both banks. The Turks were holding the cliffs on the far bank.

CASSELS' Cavalry made a demonstration upstream at Ford 'A'. When the enemy's attention had thus been drawn to Ford 'A', a real crossing was effected, unperceived, at Ford 'B' and the cliffs opposite seized with little loss to us. This further attracted the enemy's attention to his left flank. Meanwhile two battalions had been ferried across at 'C' quite unperceived. At first light they rushed the cliffs above KABAJ village and took them almost without a casualty. A bridge was then built at 'D', and CASSELS' Cavalry, which had meanwhile concentrated there, moved across the bridge and rapidly cut the Turks' line of retreat up the Tigris.

The enemy lost heavily, including 1,200 prisoners, while General MARSHALL's total casualties were only 73. It was a skillfully-planned and admirably executed plan.

13. *Action at BAND-I-ADHAIM, 30th April 1917 (vide Sketch Map No. 3).*

Meanwhile the stout-hearted ALI IHSAN once again appeared on the scene; this time he was advancing in strength down the ADHAIM to succour the battered remnants of the 14th Turkish Division.

General MARSHALL consequently turned north and advanced rapidly up both banks of the ADHAIM to meet this new threat. There was constant fighting, under very trying conditions of heat and thirst, right up to ADHAIM village, where the Turks were strongly entrenched.

Again General MARSHALL successfully employed guile. On the evening of 29th April he demonstrated at the Turks' extreme left with the 38th Infantry Brigade, but his real attack was carried out on the enemy's centre by an Infantry Brigade on each bank of the ADHAIM river at first light on the 30th April. This attack was entirely successful, but two battalions of the 40th Brigade went beyond supporting distance, while capturing 8 guns and many prisoners north of ADHAIM village, and they omitted to consolidate properly there. ALI IHSAN had started a general retirement when a very bad dust-storm commenced and entirely blinded our troops. He took immediate advantage of this to counter-attack the two detached battalions north of ADHAIM village. These had no chance whatever, as neither they nor the 38th Brigade could see anything until the Turks were swarming over them. Those two battalions lost very heavily and the Turks recaptured most of their prisoners and guns. ALI IHSAN then rapidly withdrew without further molestation through BAND-I-ADHAIM. All further fighting round BAGHDAD then ceased for the hot weather. General MAUDE and his troops had completed their task well and rapidly, in spite of very great heat and very trying physical conditions. The Turkish 6th Army was virtually destroyed and BAGHDAD was safe from enemy attacks and from floods, but ALI IHSAN had also proved himself to be a commander of the highest order.

(To be continued)

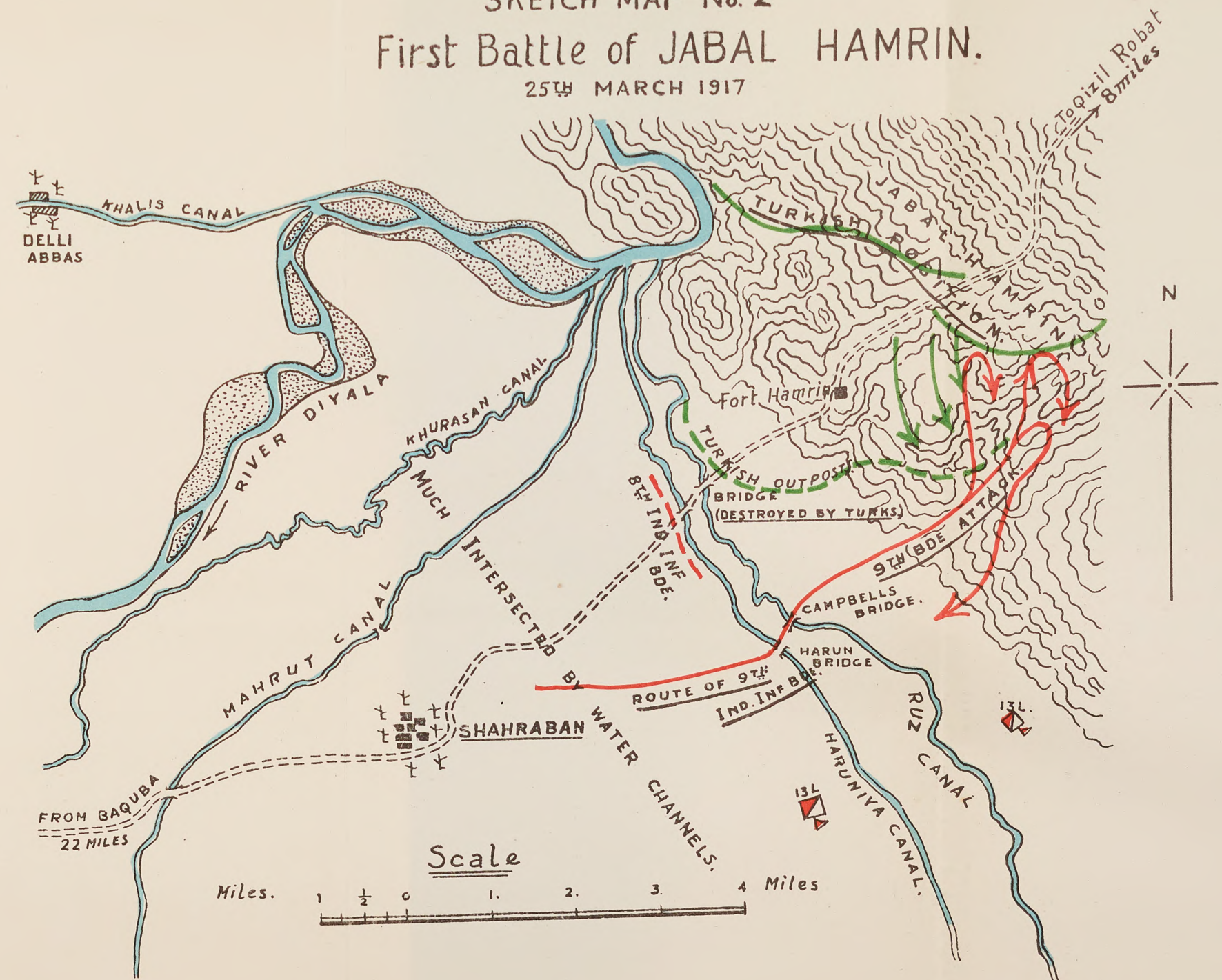
Scale of Miles.

10 5 0 10 20 30 40

MOUNTAINOUS COUNTRY _____
 MAIN ROADS _____
 SECONDARY ROADS _____
 PLAN FOR ATTACKS 24-29 APR. 1918 _____



SKETCH MAP No. 2 First Battle of JABAL HAMRIN. 25TH MARCH 1917

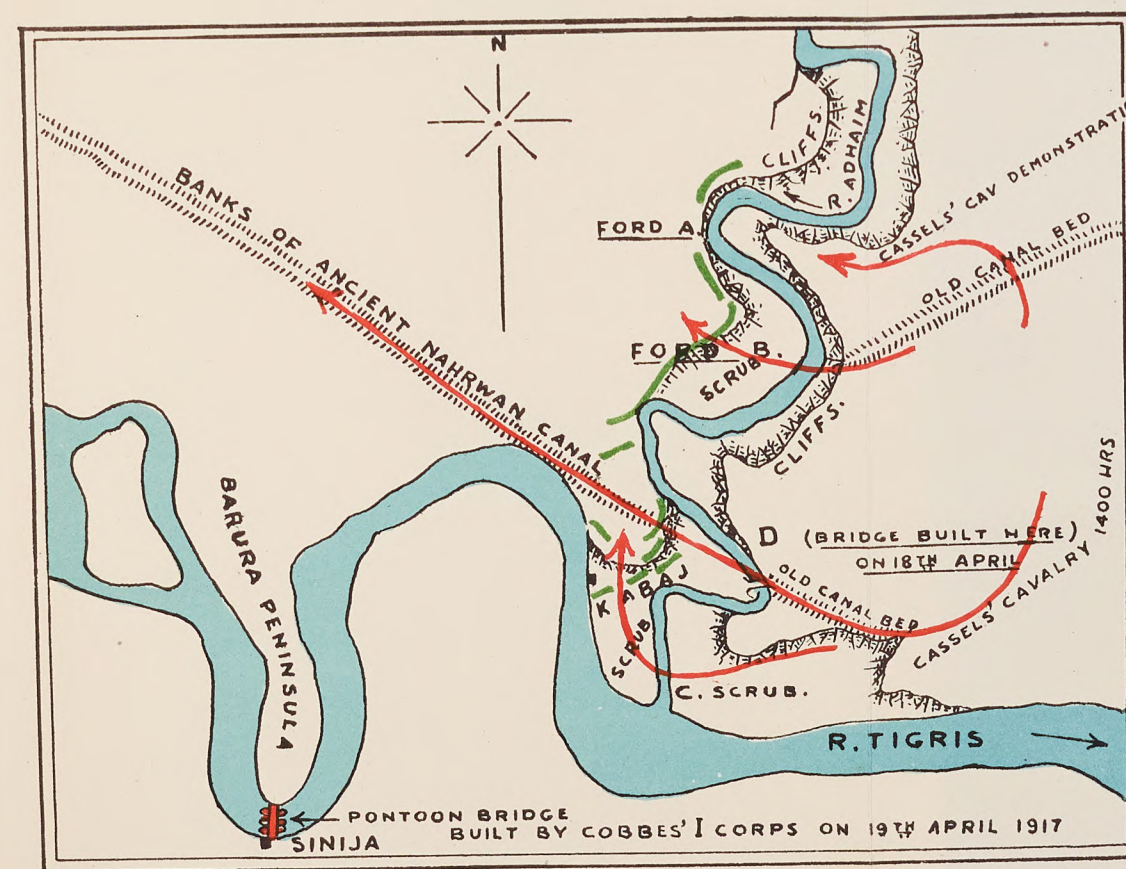


SKETCH MAP No.3.

PASSAGE OF THE RIVER ADHAIM.

18TH APRIL 1917

Scale
Mile. 1 1/2 0 1 2 3 Miles



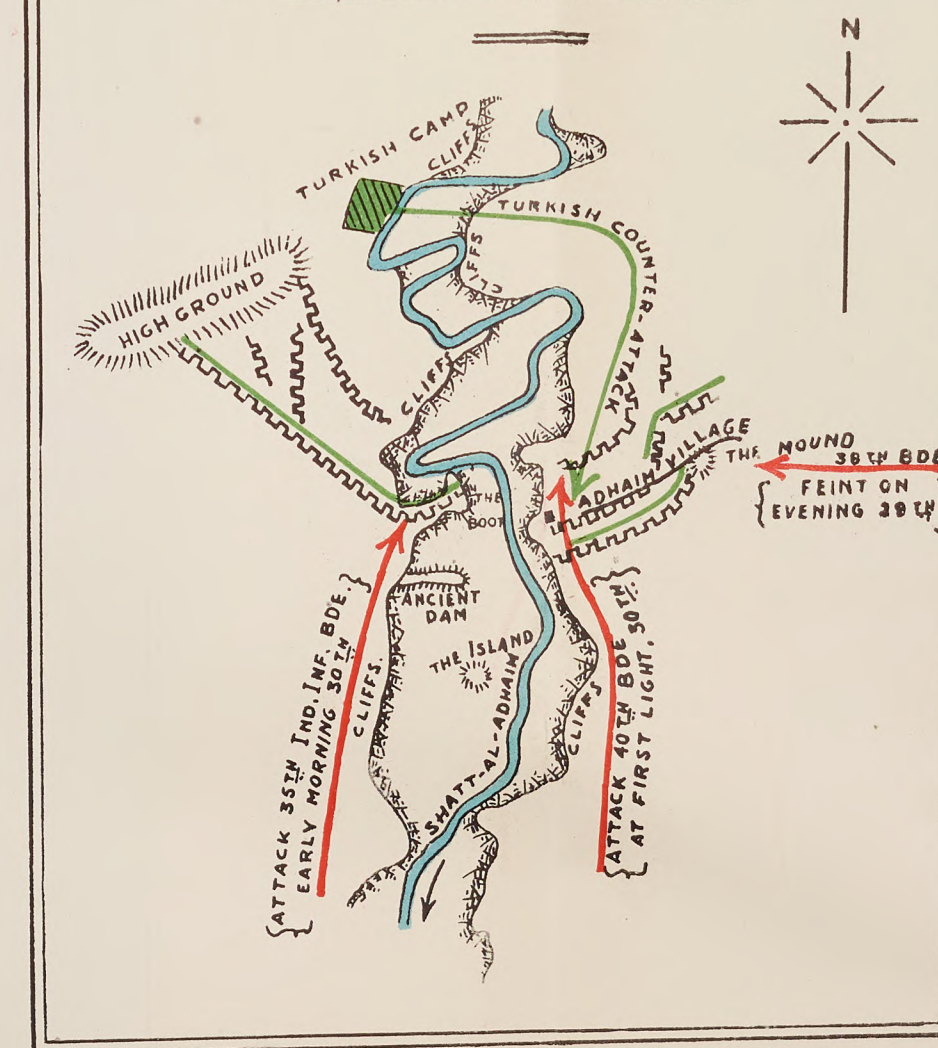
KEY

TURKISH POSITIONS IN GREEN.
BRITISH MOVEMENTS IN RED

ACTION AT BAND-I-ADHAIM

30TH APRIL 1917

Scale
Yds 1000. 0. 1000. 2000 3000 4000 5000 Yds



MAHSEER FISHING—I, "THEORY"

By CAPTAIN J. R. MORRIS, 9TH GURKHA RIFLES

1. *The Movements of the Mahseer*

It is a fact, of which anglers and village netsmen take full advantage, that at the beginning of the rains there is a large run of fish from the main rivers to their tributaries. The object of this movement would appear to be that of spawning. In both India and Burma the small rivers and streams, though often but trickles in the cold and hot weather months, become large rivers during the monsoon period. When in flood the rivers offer security from attack by reason of the discoloured water, adequate flood time feeding and a free path of deep water to suitable spawning grounds. My personal experience is that the only occasions on which fish full of milt are taken occur just before the monsoon breaks. It is extraordinary also that mahseer are seldom observed in the act of spawning. Should this occur when the rivers are low and clear such observation ought to be of frequent occurrence.

After the rains, apart from a few fish which remain in the small rivers which have large deep pools throughout the year, there is a general downstream movement towards the big rivers. Later during December, January and early February when the weather is colder the mahseer tend to collect in the deepest pools seeking always the warmer water. At the end of the cold season when the weather becomes hotter the mahseer move to the faster flowing water and rapids. Here they remain until the melting of the snows brings down the snow water and renders, in most cases, fishing and observation impossible. To avoid this cold water, some of the mahseer move into the smaller rivers not affected by the melting of the snow, whilst the remainder appear to lie in the vicinities of the junctions of these small rivers and the snow affected waters. There they wait until the break of the next monsoon when the cycle of movement begins again.

2. *Fishing Seasons, Weather and Water Conditions*

The best fishing occurs during the hot weather. In the monsoon, if the rivers have time to clear during a break in the rains there will be excellent chances of sport. After the rains the fishing is only good for a comparatively short period and the angler should try to reach the rivers as they begin to clear. The cold weather

usually offers the poorest chances of good fishing. This is a general rule but there are exceptions and the novice must seek local guidance. In the waters of the Ganges and Jumna and their tributaries, during November, December and January, very little fishing is done. In some parts of Upper Burma, on the other hand, these are quite good months and the local records show that fish of 84, 64, 36 and a number of 20 and 15 pounds have been caught.

The best weather often consists of those bright, sunny days when conditions are really settled. The mahseer appear to sense a coming change of weather some time before it occurs and are usually off their feed at such times. A full moon is sometimes coincident with bad fishing periods. Thunder too has a bad effect, and yet on rare occasions it makes the fish go mad and seize any and every description of lure.

There seems to be no rule as to the best times of the day, sometimes the morning, sometimes the afternoon. I have persuaded myself that the very early morning and the hottest part of the day are bad times. Numbers of anglers disagree with me and attribute this to laziness on my part. Of the early morning I still have a few pricks of conscience, but of the hour between one and two none. By this time one is tired and so fishing badly; and, if one intends to fish keenly until dusk and later, a good rest is essential. I have rarely done much good with the spinning rod when fishing after dark, though the trout rod often affords good sport.

3. *Food*

It is generally accepted that the mahseer is largely a bottom feeder. Examinations of the contents of the stomach have shown, more often than not, a mixture of green weed and slime and grit. At times, traces of small fish fry are to be found, more frequently perhaps in the hot weather than at other times. The mahseer is also known to feed upon crickets, dragon flies, frogs, grasshoppers, locusts, mulberries, atta and gram. With the exception of atta and gram, these feeds which are also used as baits are limited to particular rivers and particular seasons of the year. Each calls for a technique of its own.

The main purpose of this article being to consider the mahseer as a predatory fish it is necessary to return to this subject. The movements of the mahseer already described are not confined to this species. Many others, such as the chilwa, stone loach, kalabanse and barillius bola, follow a similar course; similar except

that judging from observations made at a fish ladder, the runs of these species commence earlier. During these runs the mahseer prey upon the small fry and it is at these times that the cream of mahseer fishing is to be found.

We may conclude, therefore, that the mahseer is a bottom-feeder with a decided preference for a seasonal change of diet and that, as far as spinning and big fly fishing are concerned, he becomes a game fish when his predatory habits or recollections of these habits are aroused.

4. *Reasons for taking of Lures*

Anger, high spirits, jealousy, curiosity and hunger have all been suggested as reasons. Any discussion of the first three must be largely speculative. There remain the reasons of curiosity and hunger.

Curiosity appears to be more worthy of consideration. When casting a spoon into a clear still pool, the small mahseer are sometimes seen to follow this without endeavouring to take it. The larger mahseer more rarely do this and when they do, one can, as often as not, rely on that pool yielding at least one fish; on other occasions, however, under apparently the same conditions, the fish will either scatter in all directions or remain in their lies oblivious of the lure. If it is concluded that curiosity is, at times, responsible for a mahseer taking a lure, the deduction must be tempered with the thought that this curiosity may be but an enquiry as to whether the lure is or is not fit to eat.

When using dead bait, live bait, and the other natural foods, there can be no doubt that hunger is the main incentive. The artificial baits that are used for mahseer fishing do, to some small extent, represent the small fish fry on which mahseer feed. I am inclined to believe that the success of these baits lies in this representation. The most difficult lure to reconcile with this theory is the spoon. The chief characteristic of the spoon is that of flash; in this it resembles the flash made by a small fish during movement, and so, the spoon's attractiveness may also be attributed perhaps to the appeal of hunger.

5. *The Choice of a Lure*

This and the following three paragraphs deal mainly with the larger mahseer and the heavier of the two tackle outfits described later.

Phantoms, devons, and many other types of baits, have all on occasions caught mahseer. These baits are merely copies of those that are used at home for salmon and trout fishing and, with but one known exception, have not been designed for mahseer fishing. In practice one very seldom sees phantoms and devons being used and a beginner is advised to content himself with spoons, dead bait mounts and the bait described below. The known exception is the chilwa nature bait of Messrs. Percy Wadham's Specialities, Ltd., Newport, Isle of Wight. Over a number of seasons when the chilwa fry are running, this bait has been more successful than even the natural fry used on a neat dead bait mount. The chilwa can be easily recognised. They are three to four inches in length with flat bodies and silvery scales, and when caught they have a pale green tinge which quickly fades. Apart from the chilwa, therefore, the novice has to decide between using a dead bait and one of the three types of spoons illustrated in Plate I.

The spoon is the more blatant lure, its flash advertises its presence more decidedly, and it is a cleaner and more simple lure to mount than the dead bait. The latter is obviously the more natural lure, and it can be fished deeper in very fast water where the pull on a spoon would force it close to the surface and often right out of the water. The spoon, therefore, is better for high water and the dead bait for low water conditions and for exceptionally fast waters. Subject to these considerations the use of the spoon is generally recommended on account of its cleanliness and simplicity. There remains the selection of a spoon from the various patterns and sizes that lie in the tackle box.

The hog-backed spoon is well suited to deep, still pools with little flow. In fast waters this type produces a tremendous pull on the line, swims very high, and is not so suitable as the other types.

The Norwegian spoon is long and narrow and is good for fast waters. It has, however, the disadvantage of not spinning so well, with slow winding of the reel, in the quiet eddies and back waters at the near side of the rapid water.

The ordinary spoon lies half way between the above spoons. It spins quite well in slack water and in rapid water is almost as good as the Norwegian spoon. I have for a number of years used these ordinary spoons to the exclusion of other types. This is,

however, a matter of personal convenience and suits the rivers I usually fish.

For all normal river conditions the 2-inch spoon is recommended. For high waters the 3-inch spoons should be used. For simplicity I have omitted the $2\frac{1}{2}$ -inch spoons which are very popular on many rivers and the $1\frac{3}{4}$ -inch spoons which are occasionally used.

Whether an all silver, or a copper and silver, or any other type of spoon, is selected, is of no great importance under normal water conditions. Time and time again, under normal conditions, I have purposely fished a colour not being used by other anglers and neither they nor I have had the advantage. For other water conditions the principle of using the bright all silver spoon for high water and the more dull coloured spoons for low water is, I think, sound. No advantage has ever been found in the spoons with "scale" markings on the convex side.

6. *Fishing the Pool*

Probably the most difficult part of spinning lies in the control of the bait as it swings across the stream. Whilst it is impossible to lay down a definite rate or place, the aim should be to spin the bait as slowly as possible over the anticipated lie of the fish. When the strength of the current is not suitable, line can be paid out or reeled in to achieve this object. To some lies it is necessary to cast upstream, particularly when fishing the slack water above a junction. Even in quite fast water, by moving the rod and by winding the reel quickly it is, in most cases, possible to keep the bait spinning.

The novice is usually advised to cast across and downstream at an angle of 45 degrees to the rapid water of a pool and, taking two paces between each cast, to continue until the shallow water at the tail of the pool is reached. Later he should adopt the more interesting system of radial casting. By fishing the pool by bounds and making from each stage casts of various lengths, beginning naturally with the short casts, until all the water of the present bound has been covered, he will cover the water equally well and will also present the lure to the mahseer at different angles.

When there is a long length of river to be fished, it is more enjoyable to confine one's self to casting, twice or thrice, to likely

lies. As judgment of where fish lie develops, one attains, at least on some days, a feeling that each cast is covering a fish.

7. *Lies*

Sometimes it is easy to ascertain the whereabouts of the mahseer. When a run of small fish fry is taking place the mahseer will be found near all places where the fry tend to collect. On the majority of occasions, however, no such evidence will be available, and one has to fish all the lies judging them from the surface of the water. On some rivers the actual lies of the fish can be seen. By studying such places the novice can learn the effect of the variations of the bottom of the river on the surface of the water. Changes in the speed of the current, eddies, a small hump of water or a small wave, are often the only evidence of a likely lie. With conditions varying so enormously no exact data can be given. All I can hope to do is to illustrate where and when mahseer have been found, trusting that this may help a beginner to think out these problems for himself.

As a general rule mahseer avoid places where the river bottom is covered with sand and prefer stretches covered with rocks, boulders or stones. Under normal water conditions mahseer have been found: Throughout the length of a pool in the shelters provided by rocks and boulders; in the eddies and backwaters at the sides of a rapid; at the foot of the rapid near the edges of the smooth pool water; at the point where the white water ceases and becomes smooth; in the still whirlpools, bays and backwaters, so beloved by the red mahseer of Upper Burma; at the tail of a pool just before the water shallows *en route* to the head of the next rapid; and, towards dusk, in those shallow waters to which the mahseer move in search of their prey.

It must be emphasized that the angler will find rivers and occasions when the mahseer will upset all calculations. For example, in the Sinan of Upper Burma, mahseer up to 50 pounds are caught in the slacker water of the deep, still pools, the fast waters rarely yield a fish.

8. *Playing a Fish*

To illustrate the theory of playing a fish two extreme cases will be given. The first case will consider the more normal conditions when all is clear.

The mahseer practically always takes the lure with a dash, followed at once by a turn and that glorious downstream rush of

many yards, without even a pause in which the angler can check his gear and see that all is clear. During this run the fish should be allowed to take out, against the check of the reel, all the line it wishes. The reel should not be braked either by placing a finger (or thumb) on the exposed rim or by using any additional brake the reel may possess. The more the fish runs the quicker will it tire and the sooner will it be landed.

The angler's first object is to get to that position of advantage just below the fish, from which the fish has to fight against both the strength of the current and the strain of the line as applied by the angler. To exert the maximum pull on the fish, side strain is now applied. This upsets the balance of the fish, forces it closer to the angler's bank, and is much more effective than the strain applied with the rod held more or less vertical and pointing towards the fish. The latter merely attempts the impossible task of trying to pull the fish's head out of the water. The method of using side strain is to hold the rod almost horizontal and pointing downstream and to apply pressure by moving the rod in an inland direction. Then, reeling in line at the same time, the rod is brought back towards the water until it is again pointing downstream. This is repeated until the fish, which will not stand much of this, dashes off once again. At each dash the fish is allowed to take all the line it wishes, until it stops, when the angler again manoeuvres into a position just below the fish. When tired the fish may turn its head downstream and float slowly down on the current. To counter this, side strain is again applied but this time the rod is pointed upstream which usually results in the turning of the fish.

In the next case let us imagine that there is a snag which, if it be reached by the fish, will spell failure; or that the river is so high in flood that it is doubtful, if the fish is permitted to run, that control over it will ever be achieved; or that, for the angler, movement downstream is impossible. Here, of course, the reel is braked as hard as the strength of the tackle will permit. If, in spite of this, the fish is now approaching close to the snag, the rod point should be lowered until all the strain has been taken off this and the reel jammed completely. With the rod in this position the maximum strain, which is equal to that of the strength of the line and trace, is exerted. This is contrary to the popular

fallacy of butting a fish; a simple experiment with a spring balance will, however, show that the minimum pressure is exerted when the rod is held vertical, and that the pressure increases as the rod is lowered to a position pointing directly at the fish. If all is well the fish has now been stopped; if not the line will be broken, but with the rod in this position it is more than probable that the break will occur at the end of the line nearest to the fish. Having stopped the fish, the angler should walk a considerable distance upstream, slowly step by step without winding the reel, and then return downstream winding in line. It is extraordinary how a mahseer can be marched upstream, whereas even one wind of the reel seems to irritate the fish and off it goes. Where the lie of the land does not permit of walking upstream, the last resort is to pump-handle the fish. Without for a moment relaxing strain, the rod is raised and line then wound in as the rod is slowly lowered. By repeating this again and again, the fish will be gradually brought upstream to the most favourable landing place.

9. *Landing the Fish*

On the rivers I have fished in India it is very rare for a net, gaff, or tailer to be carried, although in Upper Burma a gaff is fashionable. The practice is for the angler to play his fish to a standstill, bring it to shallow water, and hold the fish at the edge so that the coolie can wade in and seize the fish with both hands behind the gill covers, and so carry it ashore. Even if the fish cannot be brought into shallow water, provided the coolie can get right down to the water's edge, this method can be used. It does, however, require a coolie with experience and, if he has not the requisite knowledge, one must teach him by landing the first fish one's self. This with a spinning rod of $1-1\frac{1}{2}$ feet and a trace of $1\frac{1}{2}$ yards is a practicable proposition. When the fish is really played out, the rod is transferred to the left hand and held with the point as far inland as possible, stooping down, the fish is seized with the right hand below the gill covers and if the fish is of great weight the coolie now called to one's assistance.

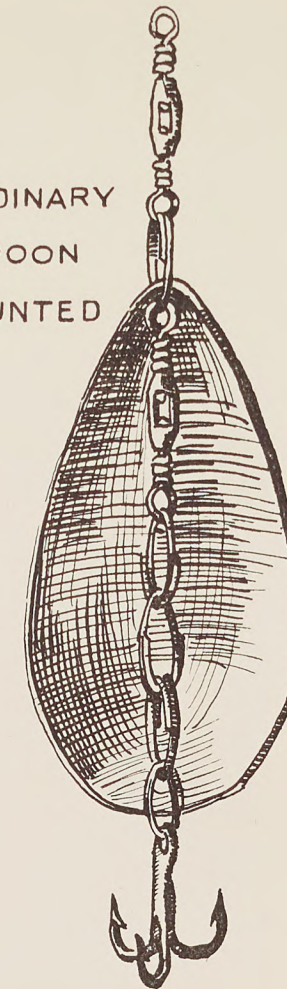
When using a gaff the scales of the mahseer are so hard that it is difficult to drive home the point. It is not advisable to use the method that is employed for salmon. Instead of gaffing the fish over the back it is better to place the gaff under the fish and

PLATE I

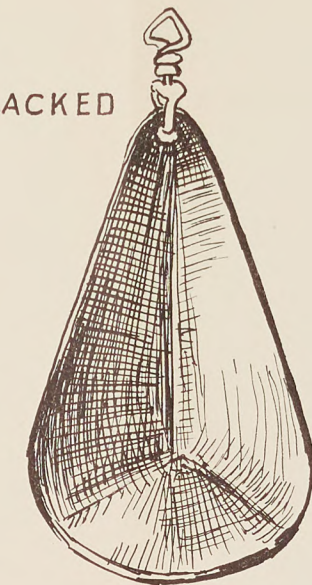
NORWEGIAN



ORDINARY
SPOON
MOUNTED



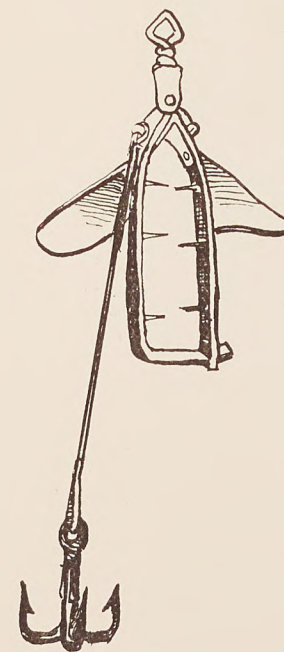
HOGBACKED



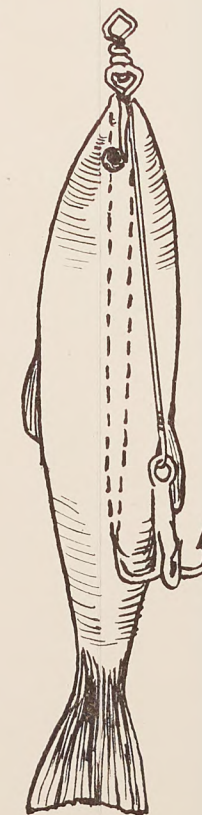
JARDINE LEAD



HILLMAN LEAD



CROCODILE
SPINNER



WOBBLER
MOUNTED



WOBBLER

to drive in the point with a sharp inward and upward movement. After one or two efforts the fish is usually secured. Though these misses are very frightening, they are not so serious as they would be in salmon fishing, as the mouth of the mahseer offers a much firmer hook hold. As before, it is better (for a right-handed man) to hold the rod with the left hand and to use the right for the gaff. The reel and line must be clear so that, should you miss and the fish plunge away, the reel will give freely to the fish.

Finally, if one has the misfortune to hook and land a gouch, do not adopt the method described in the first part of the paragraph. If you do, either you or your attendant may get a badly mangled hand. Instead of this seize it by the tail which nature has kindly fashioned so as to afford a good grip. The gouch is exceedingly ugly, is of dirty green to brown in colour and has a mouth full of uncommonly sharp teeth.

10. *The Small Fly Rod*

Except that the amount of force used must be moderated, the tactics advocated above should be followed. A gut cast is now being used and, even when applying the utmost strain on a fish, a portion of this strain should be taken on the rod by holding it slightly upwards. When using both the fly and fly spoon, these are cast downstream in a manner very similar to that of the spinning rod. After casting, the rod is raised and held up so as to keep as much line as possible out of the water. The rod point should follow the lure across the stream keeping a little behind it. In rapid water there will be but little opportunity and no necessity for working the fly. In more slowly flowing water movement should be given to the fly by gathering in the line, by jerks, with the left hand. As a means of controlling the movement of the fly, the waving of the rod point up and down is not recommended; with a long cast it has but little effect on the fly and adds a sort of drowsy rhythm to the proceedings which is not conducive to alert angling.

REVIEWS

Europe in Arms.

BY CAPTAIN LIDDELL HART

[(*Faber and Faber Ltd.*) 12s. 6d. net.]

Captain Liddell Hart disarms criticism to some extent by the explanation that this new volume is composed largely of material contributed to various periodicals and journals during the past two years. However carefully material of this nature is revised or supplemented, allowance must be made for some unavoidable lack of continuity; minor contradictions and repetitions are only to be expected and it is difficult to avoid the impression that some at least of the material, however pertinent at the time it was written, is now included for no better reason than that it was available.

The basic idea underlying the book is the author's conviction that the power of the defence in modern warfare has increased to such an extent as to render the attack to all intents and purposes impotent and that any objective study of warfare cannot fail to lead the scientific observer to this conclusion. The increase of fire-power conferred by the multiplication of automatic weapons, the increased efficiency of anti-tank weapons and even the growth of mechanization which permits the rapid reinforcement of threatened areas has given the defence such overwhelming advantages that the next shock between two modern armies must result immediately in a deadlock; any future attempt to mobilize a nation in arms will merely ensure that the deadlock will not persist but will break down in chaos brought about by the paralysing effect of attack from the air. The possibility of restoring to the attack its lost powers is hinted at, but the author is more than doubtful of the ability of the professional soldier to rise to the level of the new technique involved. This new technique embraces the "masked attack," the "baited offensive," the "luring defensive," and the "dispersed strategic approach." These expressions are new and there may be behind them a new conception although at first sight it would appear that the advantages of the "luring defensive," for instance, have been appreciated and acted upon since man first began to use his brain to supplement his animal strength.

Arguing from this basic conviction, Captain Liddell Hart puts forward two main secondary conclusions. He would relieve our land forces of any possibility of being called upon to intervene in a war on the continent of Europe (with the saving clause that there might under very particular conditions be some value in employing on the Continent a small and highly mechanized force), and would leave to the Air Force alone any such intervention if it should be called for by our obligations. As a corollary to this suggested definition of policy he casts doubt upon the basis upon which the whole of Britain's new armament programme is framed. Not even the programme of naval rearmament is excluded from this latter criticism and, challenging the value of the capital ship, Captain Liddell Hart suggests that the nation may be committed to a vast amount of useless expenditure through the failure of its naval, military and air advisers to survey the problem scientifically, objectively and from the widest point of view.

These views are interesting and undoubtedly have their adherents but it is one thing to theorize and quite another matter to frame the policy of an empire not in the face of theory but of hard facts. Armaments, or a programme of rearmament, must admittedly be based upon policy and any reduction in the many various tasks which our military forces must be prepared to carry out would be welcomed, but "splendid isolation" is not a new phrase in our history and however much we may criticize the strategical employment of our Expeditionary Force in 1914, we must bear in mind that political considerations must sometimes carry greater weight than purely military wishes. The enormously increased power of the defence is apparent even to the non-scientific student but to assert that defence is now impregnable and will always remain impregnable and to base policy upon that assertion is to assume that the science of war is a dead science and that two thousand years of change, of development and of growth have suddenly solidified and that what was alive is now petrified and inert. Captain Liddell Hart may be right and the many other keen enquiring minds at work to-day in Europe may be wrong, but that is a question which must be left for the individual reader to decide for himself.

"Europe in Arms" touches upon many other subjects and does real service in throwing the torchlight of criticism upon

certain obscure corners of our military administration. It contains much of interest as regards the progress and tendencies of rearmament in other European countries, deals concisely with the recent Italian campaign in Abyssinia and with certain problems which may affect the British Empire as a result of the success of that campaign, and brings a fresh outlook to bear upon many of our difficulties of training, of recruiting and of organization. It is all the more regrettable, therefore, that the author's remarks upon many of these subjects are too often coloured by his prejudice against the professional sailor and soldier in favour of the non-professional but scientific student of war. It is difficult for a soldier to comment usefully upon this prejudice, but as an example of the scientific method of studying war, we may make one quotation:

"Soldiers may go into action at any pace between 3 m.p.h. and 30, while from overhead they may be attacked at 300 m.p.h. Is it not possible, *even probable*, that when these differing rates of movement are added together the sum may be zero?"

The portion in italics is the reviewer's.

A. V. A.

The East India Company's Arsenal and Manufactory

By BRIG.-GENL. H. A. YOUNG, C.I.E., C.B.E.

[(*Oxford University Press*), 12sh. 6d.]

"The East India Company's Arsenal and Manufactory" fills a definite, though perhaps little realised, gap in the bibliography not only of John Company's days but in that of the history of the Army in India. The fact that the subject has never been fully dealt with before is possibly partly responsible for the fact that "the very existence of any military manufacturing establishments in India seems to be unknown to modern writers"—and "the ignorance of the officers of the Indian Army concerning the factories, in which so much of their equipment was made, and the arsenals, from which they drew their supplies of military stores, was, in my time, simply amazing."

Though present ignorance amongst the officers of the Army in India in respect of their arsenals and factories may not be so complete as it was in those days, yet there is no doubt that *even* amongst the factory and arsenal officers themselves there is an

almost entire ignorance of the earlier establishment under John Company from which they are descended.

The manufacture of powder seems to have been the earliest of the Company's war-store manufacturing activities, and it will come as a surprise to many that gun-powder was made in the Company's powder mills as early as the third quarter of the 17th century.

General Young gives a complete review of the manufacturing activities of the three presidencies from the earliest days, connecting them with the existing up-to-date manufacturing establishments.

The book is packed with interesting facts concerning the many vicissitudes through which the old-time factories and arsenals went. There are details and anecdotes of the officers and artificers who were employed in them, together with many quaint sidelights on the ethics pertaining in the days of John Company and the latter's administrative methods.

A glance at the bibliography shows the immense care that General Young has taken to consult every source of information and the result is an authoritative and very readable account of a little known side of the Company's activities.

The book can be thoroughly recommended to that somewhat limited public who will be interested in this "by-way" of history.

C. S. T.

" History of the 5th Battalion (Pathans), 14th Punjab Regiment. (Late 40th Pathans.) "

BY MAJOR R. S. WATERS, O.B.E.

(*James Bain, Ltd.*)

The history of the Forty Thieves could be nothing if not interesting. The Black Mountain, Tibet, Hong Kong, France and Belgium, German East Africa and Addis Ababa (to select only a few of the Regiment's campaigns and peace stations), all help to add variety to the story of a unit whose history requires no embellishment.

The author, who is a retired officer of the Regiment, traces its history from its raising in 1858 up to the present day. Indeed he goes back further than 1858, and attempts to link up the Regiment with a pre-Mutiny 40th that disappeared in 1857—and this is the reviewer's only quarrel with him. The Regiment's authentic

history is sufficiently absorbing and it is unnecessary to try and claim for it a greater antiquity than is warranted by the Army List.

The story of how the Regiment, which was one of the many units hastily raised during and after the Indian Mutiny, developed from an experimental Frontier Corps into the famous unit that we all know is a fascinating one, and the detailed history of its class composition is one that holds a number of lessons for Indian Army officers. The book brings out well the impossible handicaps, lack of officers, inefficient arrangements for reinforcements, etc., under which the Indian Corps laboured in France. In April 1915, the Regiment lost 20 officers, British and Indian, out of a total of 30, and 320 Indian other ranks, out of a total of 650, and from then until its return to India in 1918 it never reached full strength.

Perhaps the most interesting part of the story is the account of the Regiment's experiences in East Africa from 1916 to 1918. Although the concentrated hate of the Western front and the monotony of trench warfare were not in evidence in this theatre, the climate, the terrain and the almost complete absence of *bandobast* balanced the account. For long spells at a time no rations were forthcoming and the troops lived on the country, that is to say, on mealies when they could get them or on roots, and at one time the Regiment failed to muster 50 men in possession of boots. The Germans were in no better case, for it is recorded that "an odd sight was that of beer bottles with the bottoms knocked out serving as insulators for the German telegraph lines"—truly a war of improvisation!

The author is to be congratulated on his material and the use he has made of it.

D. F. W. W.

The Last of the Gentlemen's Wars

By MAJOR-GENERAL J. F. C. FULLER.

[(*Faber and Faber*), 12sh. 6d.]

This is a book of personal reminiscences on the Boer War. General Fuller, as a newly joined subaltern, landed in South Africa with his regiment on January 13th, 1900, only to be evacuated almost immediately to England with an attack of appendicitis. He returned on November 4th. The book is based on diaries written between that date and the end of the war.

The author missed the heavy fighting. His experiences were confined to the rounding up operations carried out in 1901 and 1902. His descriptions of life in charge of a number of block-houses, or in command of a small detachment of Kaffir scouts, are entertaining.

An inspired account of the outspanning of a regular cavalry column, as resembling the entrance of the Israelites into the Holy Land, cannot fail to delight the heart of any infantry officer.

As might be expected, General Fuller, with one important exception, has little good to say of our regular army for these operations. The exception was that our army fought cleanly, and as gentlemen. For this, and from the successful peace that followed, General Fuller finds a moral. In his title, and his preface, he stresses the fact that war must be waged by gentlemen, if it is to be successful. He holds that massed, proletarian conflicts, such as the "first cads' war of 1914—1918," should be avoided. His watchword is quality, not quantity. With the last statement one naturally sympathises, but General Fuller's arguments in linking it with a so-called "Gentlemen's war" are thin. Can war ever be gentlemanly? It seems highly doubtful. And it is amusing to find that the one military operation, for which General Fuller reserves unqualified praise, was the action of a scout in telling a deliberate lie to an old woman.

"Minor operations of war depend for their success far more on . . . the skilful manipulations of a lie in place of a truthful application of the drill book." True; but hardly gentlemanly!

Moreover, was the "unsportsmanlike war of 1914—18" the first cads' war? Admittedly, Versailles was not a shining example of a peace treaty, but it was a hundred times better than that which disgraced the end of the American Civil War, in spite of Lincoln, Lee, Jackson, Grant, Sherman, Ashby, etc., all of whom General Fuller would, presumably, class as gentlemen. The moral, if there is one, seems to be that peace should be made by the soldiers who fought the war. They alone will have retained enough humanity to be able to confirm their efforts by a statesmanlike peace. In other words, the Boer War was the last of the gentlemen's peaces.

After all, General Fuller stands condemned out of his own mouth. He states, quite definitely, that he saw only one really attractive girl during all the rounding up operations. And that, surely, is no war for any gentleman.

G. W. W.

Official History of Australia in the War of 1914—18, Volume V**THE A.I.F. IN FRANCE 1918**

BY C.E.W. BEAN

[(*Angus and Robertson, Ltd., Sydney*) 21 s.]

The winter months of 1917-18 found the Australian divisions, their strengths seriously depleted by the casualties of the Third Battle of Ypres, employed in a defensive role at Messines. It is at this point that the fifth volume of the Official History opens, in order to follow the fortunes of the A.I.F. up to the early days of May 1918, when Ludendorff's great offensive had wasted away before Amiens and Hazebrouck.

The complicated operations of this period present a problem of no little difficulty to the historian, who must ever be dependent upon a mass of conflicting information. For this reason alone the compiler of the new volume may well be congratulated on the industry and care with which he has produced such an accurate and readable account. There are moments, however, when the continuity of the narrative is disturbed by over-attention to detail, and the main issue is lost in a recital of individual achievements. A brief general account of each phase of the battle would undoubtedly help to produce a clearer picture. On the other hand, the numerous extracts from private documents and regimental records reproduce vividly the spirit and outlook of the Australian troops.

The opening chapter refers to some domestic problems of the A.I.F.—an urgent need for reinforcements, the formation of the Australian Corps, political struggles in Australia over conscription, and an attempt to introduce the death penalty.

After a short description of the winter campaign in the Messines sector, a résumé of Ludendorff's appreciation and plan for the spring offensive is contrasted with the mutually destructive efforts of Allied leaders to reach agreement. In particular Mr. Lloyd George is criticised for his failure to provide reinforcements on the Western Front.

When the March offensive was launched, the Australian units were soon withdrawn from Flanders and ordered South. On their way up to the line, the Australians were genuinely shocked at the dispirited condition of the British divisions which had borne the brunt of the initial attack and the misery of the ensuing with-

drawal. The official historian makes no attempt to disguise this impression, but he does very fairly stress the fact that Australian forces first took part in the battle on the morning of the 27th March, by which time the German advance had been brought to a standstill by tired and disorganised British divisions. Whatever comparisons may be made, none could begrudge the Australian soldier his warm welcome from the French population, or the fighting reputation which he earned in the anxious days to follow.

Accounts of the almost continuous fighting in March and April are full of stirring incidents: Hébuterne, where the 4th Australian Division first made contact with the advancing Germans; the fighting for Derlancourt on the 28th March; then Morlancourt; the 9th Brigade flung across the enemy's line of advance on Villers—Brettoneux; the immediate counter-attack staged by the 36th Battalion on the 4th April, after the 18th Division had given way. In the latter action the brevity of the battalion commander's orders is in itself an epic. Equally valuable in tactical lessons is the more elaborate counter-attack at Villers—Brettoneux later in the month. German infantry and tanks captured the village in the early morning of the 24th April. That evening the 13th and 15th Australian Brigades under Generals Glasgow and Elliott carried out a thrilling and successful counter-attack.

The Lys offensive, which broke the Portuguese sector, is well described and, perhaps because the facts are less obscure, the narrative appears to flow more easily.

The volume includes a chapter on "The Truth about the 'Fifth' Army," and a discussion on the results of the German offensive. It is interesting to note that approval is accorded to Lord Haig's original distribution of his scanty reserves. And here too we find what must be the final comment on Australian discipline, made by a French peasant woman, watching some French infantry transport on the march.

"Francais soldiers, good soldiers like the Australians. Not much salute, march all over the road, officers talk with the men, like Australians, but good soldiers."

The operations of the Australian Corps during this critical period of the war bring out the essential characteristics of the "Digger"—his pre-eminent fighting qualities: adaptability, self-reliance and independence of thought allied to teamwork of a high order.

The achievements of the A.I.F. in 1917-18 go far to justify General Monash's contention that "individualism is the best and not the worst foundation upon which to build up collective discipline."

The appendices to this volume deal with such varied subjects as the death of Richthofen, the Australians in Mesopotamia, and a history of Dunsterforce.

Richthofen crashed on April 21st, 1918, near Vaux-sur-Somme. Credit for his downfall has been claimed both by the Royal Air Force and by certain ground units of the Australian Corps. In this appendix full evidence is set out, and the reader may draw his own conclusions.

The Australians in Mesopotamia were mainly technical personnel. The appendix describes their experiences from 1916 until the last Australian unit to fight in the Great War—"D" Signal Troop from Kurdistan—reached Australia in December 1920.

As in the case of some previous volumes, the lack of one or two more general maps is very apparent. The numerous small sketch maps serve to break up the text, but do not always help to explain its meaning. It would be a great asset if the compilers of the Australian official history could see their way to publish a collection of suitable maps in a separate volume.

G. R. B.

ADDITIONS TO THE LIBRARY, APRIL—JULY, 1937.

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X E 3 ..	Europe in Arms ..	Hart, B.H.L.	..1937
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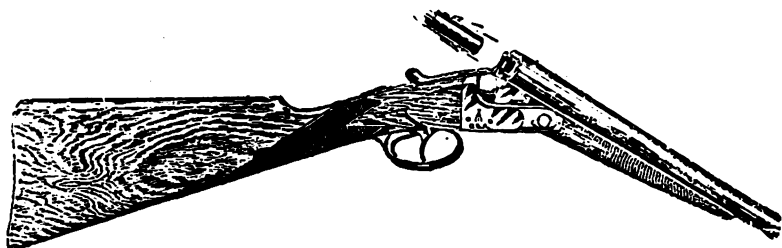
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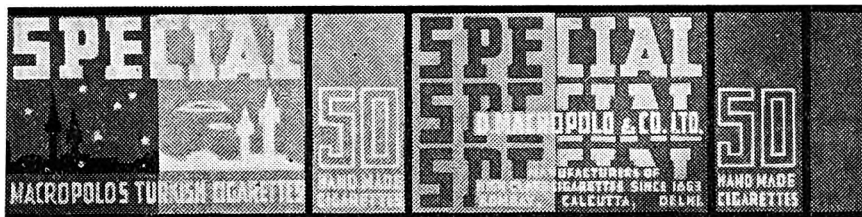
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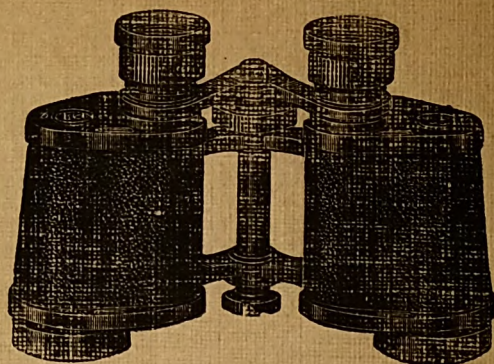
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6. Members and the public are invited to contribute articles to the Journal of the Institution for which payment is made. Information for the guidance of contributors will be found in the Secretary's Notes.
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United Service Institution of India

OCTOBER, 1937

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The following table shows the campaigns on which military history papers will be set for Lieutenants for promotion to Captain in sub-head *b* (iii), and for Captains for promotion to Major in sub-head *d* (iii), with a list of books recommended for the study of each—

1 Serial No.	2 Date of Examination.	3 Campaign set for second time.	4 Campaign set for last time.
1	March 1938.	Mesopotamia, from 12th March 1917 to the Armistice.	The Russo-Japanese War, previous to the Battle of Liao-Yang until the 24th August 1904 (excluding the actual siege operations at Port Arthur).
2	October 1938.	..	Mesopotamia, from 12th March 1917 to the Armistice.

The following books are recommended for the study of the campaigns—

Campaign.	Book.
Mesopotamia— <i>March and October 1938</i> ..	History of the Great War—Military Operations—Mesopotamia, Vols. III (Chapters XXXIV <i>et seq</i>) and IV. A Brief Outline of the Campaign in Mesopotamia, 1914—1918. Major R. Evans, M.O. (<i>Sifton Praed</i>). Mesopotamia, the last Phase, by Lt.-Col. A. H. Burne, D.S.O. (Gale and Polden.)
The Russo-Japanese War ..	Official History of the Russo-Japanese War, Parts I (second edition) and II (<i>British Military</i>), or Official History of the Russo-Japanese War (Naval and Military), Vol. I, Chapters 1—17 (less 4, 7, 9 and 10). The Liao-Yang Campaign, by Lt.-Col. A. H. Burne, D.S.O. (Wm. Clowes.)

(b) *Other Subjects.*

In addition to the manuals and regulations mentioned in K.R. and R.A.I., the following books are recommended—

- “Modern Military Administration, Organisation and Transportation” (Harding-Newman), 1933.
- “Military Organisation and Administration” (Lindsell), 1937.
- “A. and Q. or Military Administration in War” (Lindsell), 1933.
- “Military Law” (Banning), 1936.
- “The Defence of Duffers’ Drift” (Swinton), 1929.
- “Tactical Schemes, with solutions, Series I and II” (Kirby and Kennedy), 1931.
- “Elementary Tactics or the Art of War, British School,” Vol. I (Pakenham Walsh), 1926.
- “Imperial Military Geography” (Cole), 1935.
- “Elements of Imperial Defence” (Boycott), 1936.
- “A Practical Digest of Military Law” (Townsend-Stephens Pub. Sifton Praed), 1933.

VII.—**STAFF COLLEGE EXAMINATION.**—[See Staff College. Quetta, Regulations, 1930, obtainable from the Manager of Publications, Delhi or Calcutta.]

(a) Campaigns.

The following campaigns have been set for the Staff College Entrance Examination—

Strategy of—

Napoleon's Campaign of 1796 in Italy.

Waterloo Campaign.

Peninsula Campaign, up to and including the Battle of Salamanca.

The Strategy and Broad Tactical Lessons of—

The American Civil War.

Russo-Japanese War, up to and including the Battle of Liao-Yang.

The Great War in France, Belgium, Mesopotamia, the Dardanelles and Palestine, including a knowledge of the influence on the strategy in these areas of the events in other theatres of the War.

The East Prussian Campaign, 1914.

The Strategy and Tactics of—

The Palestine Campaign from 9th November 1917 to the end of the War.

The Action of the British Expeditionary Force in France and Belgium up to and including the first battle of Ypres.

The 3rd Afghan War, 1919.

(b) In addition to his official books every student is recommended to provide himself with a copy of—

(i) Military Organisation and Administration (Lindsell), 1937.

Military Law (Banning), 1936.

British Strategy (Maurice), 1929.

Notes on the Land and Air Forces of British Overseas Dominions, Colonies and Protectorates (Official),

Outline of the Development of the British Army up to 1914 (Hastings Anderson), 1931.

Imperial Military Geography (Cole).

An Atlas.

(ii) The following pamphlets, etc., can be borrowed from the Orderly Room, and should be studied—

Examination papers for admission to the Staff College.

Training Memoranda—War Office.

Training Memoranda—A.H.Q. India.

Notes on certain Lessons of the Great War.

Passing it on (Skeen).

- (iii) Periodicals, etc., to which students should subscribe—
 "The Times."
 "U. S. I. (India) Journal."

- (iv) Books which can be obtained from libraries—

(Note.—Those marked with an asterisk should be used only as books of reference.)

R. U. S. I. Journal.

Army Quarterly.

Round Table.

Journal of the Institute of International Affairs.

Science of War (Henderson), 1905.

Transformation of War (Colin), 1912.

The War of Lost Opportunities (Hoffman), 1924.

*The Principles of War (Foch), 1918.

*The Direction of War (Bird), 1925.

Soldiers and Statesmen (Robertson), 1926.

*Historical Illustrations to F. S. R. II (Eady), 1926.

*The British Way in Warfare (Liddell Hart), 1932.

*Napoleon's Campaign in 1796 in Italy (Burton), 1912.

*Waterloo Campaign (Robinson).

*Outline History of Russo-Japanese War, 1904, up to the Battle of Liao-Yang (Pakenham Walsh), 1935.

*The World Crisis (Churchill), 1931 (abridged and revised edition).

*A History of the Great War (Cruttwell), 1936.

The Palestine Campaign (Wavell), 1931.

A Brief Outline of the Campaign in Mesopotamia (Evans), 1926.

*Official Histories of the War—France, Egypt, Palestine, Mesopotamia, Gallipoli.

*Waziristan, 1919-20 (Watteville).

*The Third Afghan War (Official), 1926.

A. & Q. (Lindsell), 1933.

*The Government of the British Empire (Jenks).

*A Short History of British Expansion (Williamson), 1930.

- (v) Books and Articles on Transportation—

Railways in War. Lieutenant-Colonel E. St. G. Kirke, D.S.O., R.E., Army Quarterly, January 1930.

Strategic Moves by Rail, 1914. Journal R. U. S. I., February and May 1935.

The Lines of Communication in the Dardanelles. Lieutenant-General Sir G. MacMunn. Army Quarterly, April 1930.

The Lines of Communication in Mesopotamia. Lieutenant-General Sir G. MacMunn. Army Quarterly, October 1927.

History of the R.A.S.C., Vol. II (all campaigns).

The Supply and Transportation Problem of Future Armies. Major B. C. Dening, M.C., R.E., Journal U. S. I. India, April 1932.

The Supply of Mechanised Forces in the Field. Journal R. U. S. I., 1929.

The Board of Trade and the Fighting Services. Journal R. U. S. I., 1929.

Railway Organisation of an Army in War. Lieutenant-Colonel Anderson, D.S.O., R.E., Journal R. U. S. I., 1927.

What is Required of a Railway in a Theatre of Operations. Major-General Taylor, R.E., Journal, September 1932.

F. S. P. B. War Office, 1932. Read Sections 36 to 38. Do not memorise detail. Know where to find it.

F. S. P. B. India.

VIII.—A. H. Q. STAFF COLLEGE COURSE SERIES, 1937

A limited number of sets of papers of the abovementioned series, complete with maps, are available for sale at Rs. 9 per set. Full payment should accompany all applications.

IX.—HISTORICAL RESEARCH

The U. S. I. is prepared to supply members and units with typewritten copies of old Indian Army List pages, at the rate of Rs. 2 per typewritten page.

X.—THE MacGREGOR MEMORIAL MEDAL

1. The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor. The medals are awarded for the best military reconnaissances or journeys of exploration of the year.

2. The following awards are made annually in the month of June:

(a) For officers—British or Indian—silver medal.

(b) For soldiers—British or Indian—silver medal with Rs. 100 gratuity.

3. For especially valuable work, a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the Fund deem it desirable. Also the Council may award a special additional silver medal, without gratuity, to a soldier, for especially good work.

4. The award of medals is made by His Excellency the Commander-in-Chief, as Vice-Patron, and the Council of the United Service Institution, who were appointed administrators of the Fund by the MacGregor Memorial Committee.

5. The following are eligible for the award, whether at the time of the reconnaissance they were in military or civil employ:

- (a) Officers and other ranks of the Royal Navy, Army, Royal Air Force and of the Dominion Forces, while serving on the Indian establishment.
- (b) Officers and other ranks of the Royal Indian Navy, Indian Army, Indian Air Force and of the Indian States Forces, wherever serving.

NOTE:—The term "Indian Army" includes the Indian Auxiliary and Territorial Forces, Frontier Militia, Levies, Military Police and Military Corps under local governments.

6. The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal.*

7. Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but, in the event of two journeys being of equal value, the man who has run the greater risk will be considered to have the greater claim to the reward.

8. When the work of the year has either not been of sufficient value or has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief to deserve it.

MACGREGOR MEMORIAL MEDALISTS

(With rank of officers and soldiers at the date of the award.)

- 1889 ... BELL, Colonel M. S., V.C., R.E. (specially awarded a gold medal).
- 1890 ... YOUNGHUSBAND, Captain F. E., King's Dragoon Guards.
- 1891 ... SAWYER, Major H. A., 45th Sikhs.
RAMZAN KHAN, Havildar, 3rd Sikhs.
- 1892 ... VAUGHAN, Captain H. B., 7th Bengal Infantry.
JAGGAT SINGH, Havildar, 19th Punjab Infantry.
- 1893 ... BOWER, Captain H., 17th Bengal Cavalry (specially awarded a gold medal).
FAZAL DAD KHAN, Dafadar, 17th Bengal Cavalry.
- 1894 ... O'SULLIVAN, Major G. H. W., R.E.
MULL SINGH, Sowar, 6th Bengal Cavalry.
- 1895 ... DAVIES, Captain H. R., Oxfordshire Light Infantry.
GANGA DYAL SINGH, Havildar, 2nd Rajputs.
- 1896 ... COCKERILL, Lieutenant G. K., 28th Punjab Infantry.
GHULAM NABI, Sepoy, Q. V. O. Corps of Guides.
- 1897 ... SWAYNE, Captain E. J. F., 10th Rajput Infantry.
SHAHZAD MIR, Dafadar, 11th Bengal Lancers.
- 1898 ... WALKER, Captain H. B., Duke of Cornwall's Light Infantry.
ADAM KHAN, Havildar, Q. V. O. Corps of Guides.
- 1899 ... DOUGLAS, Captain J. A., 2nd Bengal Lancers.
MIHR DIN, Naik, Bengal Sappers and Miners.
- 1900 ... WINGATE, Captain A. W. S., 14th Bengal Lancers.
GURDIT SINGH, Havildar, 45th Sikhs.

*Replacements of the ribbon may be obtained on payment from the Secretary, U.S.I., Simla.

MACGREGOR MEMORIAL MEDALISTS—(contd.)

- 1901 ... BURTON, Major E. B., 17th Bengal Lancers.
SUNDAR SINGH, Colour Havildar, 31st Burmah Infantry.
- 1902 ... RAY, Captain M. R. E., 7th Rajput Infantry.
TILBIR BHANDARI, Havildar, 9th Gurkha Rifles.
- 1903 ... MANIFORD, Lieut.-Colonel C. C., I.M.S.
GHULAM HUSSAIN, Lance-Dafadar, Q. V. I. Corps of Guides.
- 1904 ... FRASER, Captain L. D., R.G.A.
MOGHAL BAZ, Dafadar, Q. V. O. Corps of Guides.
- 1905 ... RENNICK, Major F., 40th Pathans (specially awarded a gold medal).
MADHO RAM, Havildar, 8th Gurkha Rifles.
- 1906 ... SHAHZADA AHMAD MIR, Risaldar, 36th Jacob's Horse.
GHAFUR SHAH, Lance-Naik, Q. V. O. Corps of Guides.
- 1907 ... NANGLE, Captain M. C., 92nd Punjabis.
SHEIKH USMAN, Havildar, 103rd Mahratta Light Infantry.
- 1908 ... GIBBON, Captain C. M., Royal Irish Fusiliers.
MALANG, Havildar, 56th Punjab Rifles.
- 1909 ... MUHAMMAD RAZA, Havildar, 106th Pioneers.
- 1910 ... SYKES, Major P. M., C.M.G., late 2nd Dragoon Guards (specially awarded a gold medal).
TURNER, Captain F. G., R.E.
KHAN BAHADUR SHER JUNG, Survey of India.
- 1911 ... LEACHMAN, Captain G. E., The Royal Sussex Regiment.
GURMUKH SINGH, Jemadar, 93rd Burmah Infantry.
- 1912 ... PRITCHARD, Captain B. E. A., 83rd Wallajahabad Light Infantry (specially awarded a gold medal).
WILSON, Lieutenant A. T., C.M.G., 32nd Sikh Pioneers.
MOHIBULLA, Lance-Dafadar, Q. V. O. Corps of Guides.
- 1913 ... ABBAY, Captain B. N., 27th Light Cavalry.
SIRDAR KHAN, Sowar, 39th (K.G.O.) Central India Horse.
WARATONG, Havildar, Burmah Military Police (specially awarded a silver medal).
- 1914 ... BAILEY, Captain F. M., I.A. (Political Department).
MORSHEAD, Captain H. T., R.E.
HAIDAR ALI, Naik, 106th Hazara Pioneers.
- 1915 ... WATERFIELD, Captain F. C., 45th Rattray's Sikhs.
ALI JUMA, Havildar, 106th Hazara Pioneers.
- 1916 ... ABDUR RAHMAN, Naik, 21st Punjabis.
ZARGHUN SHAH, Havildar, 58th Rifles (F.F.) (specially awarded a silver medal).
- 1917 ... MIAN AFRAZ GUL, Sepoy, Khyber Rifles.
- 1918 ... NOEL, Captain E. W. C. (Political Department).
- 1919 ... KEELING, Lieut.-Colonel E. H., M.C., R.E.
ALLA SA, Jemadar, N.-W. Frontier Corps.
- 1920 ... BLACKER, Captain L. V. S., Q. V. O. Corps of Guides.
AWAL NUR, C. Q. M. Havildar, 2nd Bn., Q. V. O. Corps of Guides. (Special gratuity of Rs. 200).
- 1921 ... HOLT, Major A. L., Royal Engineers.
SHER ALI, Sepoy, No. 4952, 106th Hazara Pioneers.
- 1922 ... ABDUL SAMAD SHAH, Captain, O.B.E., 31st D. C. O. Lancers.

MACGREGOR MEMORIAL MEDALISTS—(concl'd.)

- 1923 NUR MUHAMMAD, Lance-Naik, 1st Guides Infantry, F.F.
BRUCE, Captain J. G., 2/6th Gurkha Rifles.
SOHBAT, Head Constable, N.-W. F. Police.
HARI SINGH THAPA, Survey Department (specially
awarded a silver medal).
- 1924 ... RAHMAT SHAH, Havildar, I.D.S.M., N.-W. F. Corps.
GHULAM HUSSAIN, Naik, N.-W. F. Corps.
- 1925 SPEAR, Captain C. R., 5/13th Frontier Force Rifles.
JABBAR KHAN, Naik, 5/13th Frontier Force Rifles.
- 1926 ... HARVEY-KELLY, Major C. H. G. H., D.S.O., 4/10th
Baluch Regiment.
- 1927 ... LAKE, Major M. C., 4/4th Bombay Grenadiers.
- 1928 ... BOWERMAN, Captain J. F., 4/10th D. C. O. Baluch
Regiment.
MUHAMMAD KHAN, Havildar, Zhob Levy Corps.
- 1929 ... ABDUL HANAN, Naik, N.-W. F. Corps.
GHULAM ALI, Dafadar, Guides Cavalry (specially
awarded a silver medal).
- 1930 ... GREEN, Captain J. H., 3/20th Burmah Rifles.
- 1931 ... O'CONNOR, Captain R. L., 1/9th Jat Regiment.
KHIAL BADSHAH, Naik, 1/13th Frontier Force Rifles.
- 1932 ... BIRNIE, Captain E. St. J., Sam Browne's Cavalry.
SHIB SINGH NEGI, No. 4013, Rifleman, 10/18th Royal
Garhwal Rifles.
- 1933 ... ABDUL GHAFUR, Havildar, K. G. O. Bengal Sappers
and Miners.
- 1934 ... No award.
- 1935 ... FERGUSSON, Lieutenant K. A. P., R.A.
BOSTOCK, Lieutenant T. M. T., R.E.
- 1936 ... ANGWIN, Captain J. B. P., R.E.
MUHAMMAD ISHAQ, No. 8372, Lance-Naik, 2/15th
Punjab Regiment.
- 1937 ... GOADBY, Major F. R. L., M.B.E., 1/6th Rajputana
Rifles.

UNITED SERVICE INSTITUTION OF INDIA

PRIZE ESSAY GOLD MEDALISTS

(With Rank of Officers at the date of the Essay.)

- 1872 ... ROBERTS, Lieut.-Colonel F. S., V.C., C.B., R.A.
- 1873 ... COLQUHOUN, Captain J. S., R.A.
- 1874 ... COLQUHOUN, Captain J. S., R.A.
- 1879 ... ST. JOHN, Major O. B. C., R.E.
- 1880 ... BARROW, Lieutenant E. G., 7th Bengal Infantry.
- 1882 ... MASON, Lieutenant A. H., R.E.
- 1883 ... COLLEN, Major E. H. H., S.C.
- 1884 ... BARROW, Captain E. G., 7th Bengal Infantry.
- 1887 ... YATE, Lieutenant A. C., 27th Baluch Infantry.
- 1888 ... MAUDE, Captain F. N., R.E.
YOUNG, Major G. F., 24th Punjab Infantry (specially
awarded a silver medal).
- 1889 ... DUFF, Captain B., 9th Bengal Infantry.
- 1890 ... MAGUIRE, Captain C. M., 2nd Cavy. Hyderabad
Contingent.

PRIZE ESSAY GOLD MEDALISTS—(concl'd.)

- 1891 ... CARDEW, Lieutenant F. G., 10th Bengal Lancers.
 1893 ... BULLOCK, Major G. M., Devonshire Regiment.
 1894 ... CARTER, Captain F. C., Northumberland Fusiliers.
 1895 ... NEVILLE, Lieut.-Colonel J. P. C., 14th Bengal Lancers.
 1896 ... BINGLEY, Captain A. H., 7th Bengal Infantry.
 1897 ... NAPIER, Captain G. S. F., Oxfordshire Light Infantry.
 1898 ... MULLALY, Major H., R.E.
 CLAY, Captain C. H., 43rd Gurkha Rifles (specially
 awarded a silver medal).
 1899 ... NEVILLE, Colonel J. P. C., S.E.
 1900 ... THULLIER, Captain H. F., R.E.
 LUBBOCK, Captain G., R.E. (specially awarded a silver
 medal).
 1901 ... RANKEN, Lieut.-Colonel G. P. P., 46th Punjab Infantry.
 1902 ... TURNER, Captain H. H. F., 2nd Bengal Lancers.
 1903 ... HAMILTON, Major W. G., D.S.O., Norfolk Regiment.
 BOND, Captain R. F. G., R.E. (specially awarded silver
 medal).
 1904 ... MACMUNN, Major G. F., D.S.O., R.F.A.
 1905 ... COCKERILL, Major G. K., Royal Warwickshire Regi-
 ment.
 1907 ... WOOD, Major E. J. M., 99th Deccan Infantry.
 1908 ... JEUDWINE, Major H. S., R.A.
 1909 ... MOLYNEUX, Major E. M. J., D.S.O., 12th Cavalry.
 ELSMIE, Major A. M. S., 56th Rifles F. F. (specially
 awarded a silver medal).
 1911 ... PETRIE, Mr. D., M.A., Punjab Police.
 1912 ... CARTER, Major B. C., The King's Regiment.
 1913 ... THOMSON, Major A. G., 58th Vaughan's Rifles (F.F.).
 1914 ... BAINBRIDGE, Colonel W. F., D.S.O., 31st Sikhs (F.F.).
 NORMAN, Major C. L., M.V.O., Q. V. O. Corps of Guides
 (specially awarded a silver medal).
 1916 ... CRUM, Major W. E., V.D., Calcutta Light Horse.
 1917 ... BLAKER, Major W. F., R.F.A.
 1918 ... GOMPERTZ, Captain A. B., M.C., R.E.
 1919 ... GOMPERTZ, Captain M. L. A., 108th Infantry.
 1920 ... KEEN, Lieut.-Colonel F. S., D.S.O., 2/15th Sikhs
 1922 ... MARTIN, Major H. G., D.S.O., O.B.E., R.F.A.
 1923 ... KEEN, Colonel F. S., D.S.O., I.A.
 1926 ... DENNYS, Major L. E., M.C., 4/12th Frontier Force
 Regiment.
 1927 ... HOGG, Major D. M.C.A., M.C., R.E.
 1928 ... FRANKS, Major K. F., D.S.O., 5th Royal Mahrattas.
 1929 ... DENNYS, Major L. E., M.C., 4/12th Frontier Force
 Regiment.
 1930 ... DURNFORD, Major C. M. P., 4/6th Rajputana Rifles.
 1931 ... FORD, Lieut.-Colonel G. N., 2/5th Mahratta Light
 Infantry.
 1932 ... THURBURN, Lieutenant R. G., The Cameronians
 (Scottish Rifles).
 1933 ... No award.
 1934 ... DURNFORD, Major C. M. P., 4/6th Rajputana Rifles.
 1935 ... No award.
 1936 ... No award.

GOLD MEDAL PRIZE ESSAY COMPETITION, 1938

The Council has chosen the following subjects for the Gold Medal Prize Essay Competition for 1938:

- (i) "Discuss the dictum that the size of modern armies has rendered strategy wholly subordinate to tactics".
or, as an alternative subject,
- (ii) "A nation's fighting power is not now merely gauged by its armed fighting strength, but also by its productive strength."
Discuss this.

The following are the conditions of the competition:

- (1) The competition is open to all gazetted officers of the Civil Administration, the Royal Navy, Army, Royal Air Force, Auxiliary Forces and Indian States Forces.
- (2) Essays must be typewritten and submitted in triplicate.
- (3) When reference is made to any work, the title of such work is to be quoted.
- (4) Essays are to be strictly anonymous. Each must have a motto, and, enclosed with the essay, there should be sent a sealed envelope with the motto written on the outside and the name of the competitor inside.
- (5) Essays will not be accepted unless received by the Secretary on or before the 30th June 1938.
- (6) Essays will be submitted for adjudication to three judges chosen by the Council. The judges may recommend a money award, not exceeding Rs. 500, either in addition to, or in substitution for, the medal. The decision of the three judges will be submitted to the Council, who will decide whether the medal is to be awarded and whether the essay is to be published.
- (7) The name of the successful candidate will be announced at a Council Meeting to be held in September or October 1938.
- (8) All essays submitted are to become the property of the United Service Institution of India absolutely, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.
- (9) Essays should not exceed 15 pages of the size and style of the Journal, exclusive of any appendices, tables or maps.



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Quartermaster-General in India.**

The Journal

OF THE

United Service Institution of India

Vol. LXVII OCTOBER, 1937 No. 289

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EDITORIAL

The Imperial Conference. Mr. Neville Chamberlain stressed the essential difference between our own Imperial Conferences and most international conferences when he said that the former were in the nature of family gatherings, assembled to exchange information and views, rather than committees called together to solve any particular problem. It was to be expected that foreign affairs and defence would be the main subjects of deliberation this year and that other matters would be driven more or less into the background. The most important result of the Conference was the statement on foreign policy, in which the representatives of the Governments of the British Empire set out the conclusions which they had reached in common. The statement involved no commitments but enumerated certain propositions on which the representatives were agreed. The Prime Ministers of Great Britain and the Dominions were unanimous in declaring that the preservation of peace was a first objective of every Government and stated their belief that the settlement of differences between nations could only be brought about by methods of co-operation, joint inquiry and conciliation. They agreed that their respective armaments would never be used for purposes of aggression or for any purpose inconsistent with the Covenant of the League. They wished to see the membership of the League increased, but admitted that this would be made easier if the Covenant could be separated from the Peace Treaties. They welcomed regional pacts provided such

pacts did not conflict with the Covenant and they urged strongly that an agreement between the countries of the Pacific would be a major contribution to the cause of peace.

In the review of Empire trade an emphatic desire was expressed by every representative that steps should be taken to stimulate international trade, a consensus of opinion which should help negotiations for an Anglo-American agreement. It was recognized that the prosperity of the Empire as a whole depended on that of the world as a whole and that an increase in international trade was a condition essential to political peace.

* * *

The Royal Commission for Palestine, under the chairmanship of Lord Peel, landed in that country last November with wide terms of reference. They were instructed to "ascertain the underlying causes of the disturbances which had broken out in Palestine in the middle of April; to inquire into the manner in which the Mandate was being implemented in relation to the obligations of the Mandatory towards the Arabs and the Jews respectively; and to ascertain whether, upon a proper construction of the terms of the Mandate, either the Arabs or the Jews had any legitimate grievances on account of the way in which the Mandate had been or was being implemented; and if the Commission was satisfied that any such grievances were well founded, to make recommendations for their removal and for the prevention of their recurrence."

Early in July the unanimous report of the Commissioners, together with a summary of their main recommendations, was laid before Parliament and issued to the public. Discussing in the first part of their report the origin of the Mandate and the causes of the disturbances of 1936, the Commissioners explain that, in order to obtain Arab support in the war, the British Government promised the Sheriff of Mecca in 1915 that in the event of an Allied victory the greater part of the Arab provinces of the Turkish Empire should become independent. The Arabs understood that Palestine would be included in the sphere of independence. To obtain the support of world Jewry, the British Government in 1917 issued the Balfour Declaration. Autonomy for the Jews was implicit in the Declaration and in the Mandate which confirmed the Declaration, subject of course to sufficient Jews going to Palestine to form a national home. The Mandate

itself has in fact been concerned with specific obligations of equal weight, positive obligations as to the establishment of the National Home, negative obligations as to the safeguarding of the rights of the Arabs. The association of the policy of the Balfour Declaration with the Mandate system implied the belief that Arab hostility to the former would be overcome.

There were outbreaks of disorder in 1920 and 1921, but by 1925 the prospects of ultimate harmony between Arabs and Jews seemed so favourable that the forces for maintaining order were substantially reduced. These hopes proved unfounded because, although Palestine as a whole became more prosperous, the demand of the Arabs for national independence and their antagonism to the National Home became accentuated by external factors such as the pressure of the Jews of Europe on Palestine and the development of Arab nationalism in neighbouring countries. These causes brought about the outbreaks of 1929 and 1933 and by 1936 they were further intensified by the sufferings of Jews in Germany and Poland, which resulted in a sudden increase of immigration into Palestine, and by the prospect of the grant of early independence to Syria and the Lebanon.

Commenting on the present situation, the Commissioners point out that the temper of the Jewish Home is strongly nationalist and that Crown Colony Government is ill-suited to such an educated and democratic community as the Jews and only serves to foster an unhealthy irresponsibility. While Jewish immigration has undoubtedly conferred great benefits on the Arabs, it has at the same time given an immense stimulus to anti-Jewish feeling among the Arabs of Palestine and to the demand for Moslem self-government. The gulf between the two races is now so wide that all hopes of a Judaic-Arab nation must be abandoned. The Mandatory Government, while it has tried to hold the balance between these two antagonistic communities, has not obtained and can never win the complete loyalty of either.

In the second part of their Report the Commissioners examine in detail what can be done in various fields—administration, public security, finance, land, immigration, social services—to improve the prospects of peace under the Mandate. They make numerous recommendations but stress the fact that these are merely the best palliatives which they have been able to devise for the disease from which Palestine is suffering. And so

the Commissioners examine in the third part of their Report the possibilities of a lasting settlement and recommend the surgical operation which they believe to be necessary.

They advise that the Mandate for Palestine should be replaced by a Treaty System in accordance with the precedent set in Iraq and Syria. Two sovereign independent States should be established, an Arab State consisting of Trans-Jordan united with that part of Palestine allotted to the Arabs and a Jewish State consisting of that part of Palestine allotted to the Jews. A new Mandate should be created for the purpose of maintaining the sanctity of Jerusalem and Bethlehem and ensuring safe access to them for all the world, access to the sea for this Mandated territory being provided by a corridor extending from Jerusalem to Jaffa. The Mandatory should also undertake the administration of Nazareth and be responsible for the sanctity of Lake Tiberias.

The frontier between the Arab and Jewish States recommended by the Commission runs from Ras-an-Naqla down the northern and eastern frontier of Palestine across Lake Tiberias to the outflow of the Jordan and down the river to a point just north of Beisan. It then traverses the Beisan Plain to a point near Megiddo, whence it crosses the Carmel Ridge and continues southward down the eastern edge of the maritime plain to the Jerusalem-Jaffa Corridor. South of the Corridor it runs down the edge of the plain to a point ten miles south of Rehovot, whence it goes west to the sea.

The Jewish State which contains much of the seaboard of Palestine is to provide free transit of goods in bond between the Arab State and Haifa. In view of the backwardness of Trans-Jordan, it is to pay a subvention to the Arab State and the British Parliament is also to be asked to make a grant of £2,000,000. Guarantees given by the Mandatory Government for the security of industries, such as the Potash Companies, are to be taken over by the new Arab and Jewish States. Finally, the treaties to be drawn up should provide that, if Arab owners of land in the Jewish State or Jewish owners in the Arab State wish to sell their land, the Government of the State concerned shall be responsible for purchase at a price to be fixed, if required, by the Mandatory Government.

The Report urges that, while these proposals do not offer either the Arabs or the Jews all that they want, they offer each

party what it wants most, namely, freedom and security. The Commissioners claim that the Arabs obtain national independence and will be able to co-operate with Arabs of neighbouring countries on an equal footing in the cause of Arab unity and progress, that they are delivered from the fear of being swamped by the Jews and from the possibility of subjection to Jewish rule, and that they are freed of the anxiety that the Holy Places, guaranteed as they are by the League of Nations, should ever come under Jewish domination. As a set-off to territory which has been occupied for centuries by Arabs, they will receive financial help both from the Jewish State and from the British Treasury. The Commissioners hold that the advantages to the Jews are that partition secures the establishment of the Jewish National Home for all time. Its citizens will be able to admit as many Jews as they themselves believe can be absorbed. They will obtain the primary object of Zionism, a Jewish nation whose nationals will have the same status in the world as those of other nations.

While British reaction to the Report, both in Parliament and outside, has been almost universally favourable, the solution of the problem put forward by the Commission has naturally evoked criticism elsewhere. The Arab Higher Committee, led by Haj Amin el Husseini, Mufti of Jerusalem, is bitterly hostile to the Report on the grounds that the best land is being handed over to the Jews and that the Arab minority in the Jewish State will be threatened with extinction. There are others who oppose amalgamation with Trans-Jordan if the Emir Abdullah is to be the ruler of the new State; while the personal supporters of Haj Amin dislike any project which will diminish the secular power of the Mufti of Jerusalem. As regards other nations, Iraq has signified her disapproval of the plan, but King Ibn Saud, with more far-sighted statesmanship, is evidently not prepared to condemn the scheme out of hand.

At Zurich, the Zionist Congress, under the leadership of Dr. Weizmann, debated the proposals bitterly and eloquently for a week. Many Jews maintain that the absorptive capacity of their new State will prove insufficient for national development, nor do they take kindly to the proposed subvention to the new Arab State. A motion to reject the Report of the Commission forthwith was however defeated, largely through the personal influence of Dr. Weizmann, by three hundred votes to one hundred

and fifty-eight, so that, at present, there is no deadlock and opportunity for discussion and compromise is still available.

While we believe that partition, compromise though it is, is the only basis on which there is any hope of attaining a lasting settlement, it must be remembered that the final word about the future of the British Mandate in Palestine will be said, not in London, but at Geneva by the League Council.

* * *

Hikmat Suleiman's Cabinet, which came into power following the *coup d'état* of 29th October 1936, has not had a long life. The *coup d'état* had been engineered by General Bekr Sidqi with the help of Mohammad Ali Jowad, a Cranwell-trained air officer. It was remarkable in that it was the first time that the army had interfered in politics, it was unfortunate in that it resulted in the elimination of several prominent men from public life. After the event, General Bekr Sidqi became Chief of the General Staff and Mohammad Ali Jowad became Director of the Air Force.

Whether the General ever contemplated a dictatorship will never be known. A Kurd by nationality, he was a forceful soldier who had graduated at the Turkish Staff College and fought against the Allies at Gallipoli. In 1921 he joined the Iraq Army and soon attained high rank. As Chief of Staff during the last ten months, he appears to have devoted most of his energy to army affairs and to have taken little interest in politics, although he remained, of course, a power behind the Government.

His murder in the garden of the Air Force Mess at Mosul, on the evening of 11th August, appears to have been an act of private revenge, while Mohammad Ali Jowad was admittedly killed in attempting to grapple with the murderer. The General's death naturally caused a great sensation throughout the country and matters were brought to a head when the commander of the Mosul garrison refused to obey orders and send the assailants to Baghdad for trial. The latter's demands included more-over the banishment from Iraq of those officers who had assisted in the *coup d'état* and the return of political exiles.

Faced with the apparent hostility of a large portion of the army, the Prime Minister had no course but to resign. A new

Cabinet was immediately formed by Jamil Madfai, who has been Prime Minister before.

* * *

In our last issue we recorded that the Government of India had, on the 23rd April, been forced to hand over **Waziristan.** full military and political control of Waziristan to the General Officer Commanding-in-Chief, Northern Command. The first stage of the operations which were then undertaken lasted until 3rd May. The 1st Indian Division entered the Khaisora Valley and engaged effectively such portions of the tribal *lashkars* as could be brought to battle. There followed a short period of reorganization of the lines of communication preparatory to the next stage. The roads to Wana and Razmak, which were closed to ordinary military traffic, were not however reopened. These posts were kept supplied by means of locally hired Mahsud motor transport and, in the case of Wana, by the Bomber Transport Flight in India, which was reinforced in June by a flight of No. 70 (Bomber Transport) Squadron from Iraq.

As soon as communications had been organized, operations were carried out by the Waziristan Division in the Sham-Shaktu area, heavy casualties being inflicted on the enemy. The Sham Plain was occupied and the Faqir of Ipi driven from his headquarters in the Shaktu. In consequence many Afghan and Mahsud supporters of the Tori Khel dispersed, the Tori Khel lost heart and in June themselves submitted and handed over rifles as security. Since then their behaviour has, on the whole, been satisfactory despite the continued and active hostility of a few irreconcilables. Following on the Tori Khel submission the area from Dosalli to the Shaktu Valley was taken over by the 1st Indian Division and communication with Razmak was reopened.

Up to this time troops had not entered South Waziristan, where the Wana Brigade is the only regular peace-time garrison. In view of the fact that the attitude of the Mahsuds was unsatisfactory, it was decided to send the Waziristan Division into South Waziristan to test the loyalty of the Mahsuds and to demonstrate our ability to move at will about Mahsud territory. Accordingly the Bannu Brigade marched, without meeting opposition, from the Shaktu *via* Sorarogha and Razmak to Ladha. The Waziristan Division, consisting of the Razmak, Wana and Bannu Brigades, then began operations in the Torwam area.

north-east of Wana. During the advance to Torwam resistance was met with from a mixed *lashkar* of Mahsud, Wazir and Afghan tribesmen on whom severe losses were inflicted. These operations restored the doubtful situation in South Waziristan, but no reduction of troops was possible until the situation had had time to stabilise and the *maliks* had regained control of irresponsible elements.

Meanwhile, in North Waziristan, work was begun and is now making good progress on three roads into the Shaktu Valley from Dosalli, from Ahmedwam in the south and from Razmak. The Ahmedwam road is being constructed exclusively by tribal labour, the other two by troops and specially raised road construction battalions, although tribal sections are starting to take up contracts on them.

In spite of these successful operations the Faqir of Ipi had not by the end of July abated his subversive propaganda and his cause still commanded considerable sympathy among the tribes of Bannu District and the Southern Province of Afghanistan. It is of interest to note, however, that during July the judgment in a civil suit in the Bannu Courts restored "Islam Bibi" to her Muslim husband. It will be remembered that this girl had been converted to Islam and the agitation to prevent her being handed back to her Hindu parents—at the time of her conversion she was a minor—first brought the Faqir into prominence. Although the Faqir and his adherents were still actively hostile, the situation in August was showing marked signs of improvement. No formed bodies of hostile tribesmen remained in the field. Sniping of camps and piquets was done only by small parties of bad characters. No active operations were in progress and the troops of the Waziristan and 1st Indian Divisions were mainly employed on the road construction already referred to.

On the 24th, 25th and 26th August Mahsud *jirgas* assembled at Ladha and Government terms, which included fines in cash and in rifles, were announced. They were received quietly and apparently with some relief. Tribes were informed that the Government had no intention of withdrawing from Waziristan and that sections harbouring hostile leaders, such as the Faqir, would be liable to punishment. It was also explained that a "protected area" would be formed round Razmak, on lines similar to the protected areas at Wana and in the Tochi. In this

area individual and tribal disputes would be settled by the Political Agent with the help of tribal *jirgas* and in accordance with tribal custom. The Government would assume responsibility for protecting the area from outside aggression. While land revenue and the normal system of administration in the settled districts would not at present be imposed, subject to the good behaviour of the tribes, preferential treatment would be accorded to the inhabitants of protected areas in any schemes for improving the economic conditions of the tribes.

The present outlook in Waziristan is brighter than that which existed three months ago. Efforts to collect the rifles demanded are being made and the Mahsuds have already handed in a considerable number. In North Waziristan the attitude of the Tori Khel remains satisfactory and tribal opinion among the Wazirs appears to be in favour of peace. On the other hand Government terms to the Wazirs have yet to be announced and the Faqir of Ipi still remains a problem. He has considerable religious influence and it is difficult to say to what extent the tribes would rally to his flag should he demand a renewal of hostilities.

* * *

The reasons which lay behind the Japanese attempts of two years ago to detach the five northern provinces of **The Far East.** China, Chahar, Suiyuan, Shansi, Hopei and Shah-tung, were partly economic and partly strategical. Japan needed raw materials, particularly coal, iron and cotton for her industries and all of them were to be had in these provinces; she needed the North China market for her exports. From a military point of view a subservient buffer-state on the south-west border of Manchukuo had its advantages.

Two years ago settlements were effected by the local Japanese General and the local Chinese Governor, Nanking at the time having little say in affairs in North China. A semi-autonomous regime was set up in Hopei and Chahar, which were combined into a single political entity under the nominal control of Nanking, but with a strong Japanese bias. At the same time a demilitarised zone was agreed on, which became completely autonomous.

During 1936 two events occurred which tended to check the Japanese advance in Northern China. These were the military revolt in Tokio with its ensuing political unrest throughout

Japan and the rebellion in Kwangsi and Kwantung, from the suppression of which Marshal Chiang Kai-Shek emerged with considerable prestige. In the latter half of the year Chinese influence and Chinese anti-Japanese feeling throughout the northern provinces steadily increased.

The clash between Chinese and Japanese troops at Loukouchiao on 7th July appears to have been unpremeditated. On 11th July a verbal agreement was entered on between the Mayor of Tientsin and the Commander of the Japanese troops, the practical effect of which was that the Chinese admitted that they were in the wrong and agreed to withdraw their troops. The agreement was, however, repudiated by the Central Government on the grounds that it had not been consulted. Six days later the Japanese Ambassador at Nanking delivered a verbal ultimatum demanding the cessation of "provocative acts" and the execution of the agreement of the 11th July. At the same time he inferred that the Japanese would consider the move of Central Government troops to Hopei as a breach of the agreement of 1935. On 18th July it appears that General Sung Chenyuan, Chairman of the Hopei-Chahar Political Council, confirmed the agreement with General Katsuki, the Japanese commander, and it is believed that he also agreed to the establishment of an entirely autonomous area in Hopei and Chahar.

Meanwhile at Nanking, Marshal Chiang Kai-Shek laid down four points beyond which the Government of China was not prepared to give way. No settlement infringing Chinese territorial sovereignty would be agreed to; there was to be no change in the status of the Hopei-Chahar Council without Nanking's consent; there was to be no removal by outside pressure of officials appointed by Nanking and there were to be no restrictions on the movement of the Chinese 29th Army in Hopei. While laying down these four points, the Central Government at Nanking seems at the same time to have endorsed at least a part of the Sung-Katsuki agreement, an agreement which they soon found themselves unable to implement since the local Chinese troops refused to evacuate the areas in question.

Sporadic fighting continued until the expiry of the Japanese ultimatum on 28th July, when the Japanese resumed full military operations, cleared the Chinese 38th Division out of the Tientsin-Nanyuan area and occupied Peiping. Throughout

August large Japanese reinforcements arrived in Hopei from Manchuria and Japan. On the Chinese side many divisions moved north to the line of the Lunghai railway. The comparative inaction which followed in northern China was probably due on both sides to the need to organise the services of supply, to the fact that Hopei with its ten-foot-high millet crops is at this time of year peculiarly difficult country in which to manoeuvre and to the sudden removal of the centre of Sino-Japanese tension to the Shanghai area.

In Shanghai the Japanese garrison consisted of the Japanese naval landing party of some 3,500 men. Here, a comparatively petty incident—the kidnapping on 12th August of a Japanese sailor, who was subsequently returned—brought matters to a head. The Chinese early occupied the Kiangwan North Station area and attacked the small Japanese forces, who, however, managed to hold out for the ten days pending reinforcement. Throughout the Shanghai operations there has been much aerial activity on both sides, the Chinese concentrating mainly against Japanese transports while the Japanese attacked Chinese aerodromes and communications.

After the bombing of the International Settlement on 14th August, it was decided to evacuate British women and children and to reinforce the British garrison at Shanghai by the 2nd Battalion, the Royal Welsh Fusiliers, and the 1st Battalion, the Royal Ulster Rifles, from Hong Kong. These two battalions were replaced in Hong Kong by the 1st Battalion, the Middlesex Regiment, from Singapore and the 5/6th Rajputana Rifles from India. On 26th August, the British Ambassador to China, Sir Hughe Knatchbull-Hugessen, while motoring from Nanking to Shanghai, was attacked by two Japanese aeroplanes, some fifty miles from Shanghai, and seriously wounded. The attack, while admittedly unintentional illustrates the extremely promiscuous nature of the fighting.

Despite the twelve Chinese divisions recently concentrated within thirty-five miles of Shanghai, it seems possible that the Chinese may withdraw and so free the International Settlement from the immediate threat of war. Certainly indications are to the effect that the Japanese regard Hopei and not Shanghai as the major theatre of war. Meanwhile, the fighting at Shanghai

has already entailed great damage to foreign interests and the practical cessation of commerce.

Although there has been no official declaration of war, it seems that both countries are committed to hostilities. Indeed Chinese opinion is probably too bitter to allow of anything but firm resistance to Japan. On the other hand Japan's immediate object, the creation of a special position for herself in North China, is already half achieved and she may for that reason decide to hold her hand.

* * *

The usual term of enlistment for the private soldier is seven years with the colours and five with the reserve.

Recruitment. Mr. Hore-Belisha's proposal to allow serving soldiers to extend at their option their period of service with the colours and to allow Sections "A" and "B" men of the reserve to rejoin the colours has been one of the most discussed topics in the Army during recent weeks. Both classes of men will, on completion of 12 years service with the colours, be eligible to re-engage to complete twenty-one years and so to qualify for the pension.

This departure from the practice of the last sixty years is frankly experimental and it is clearly inexpedient to prejudge the question. There is no doubt that short service which turns a man out into the street at the age of twenty-six, relatively unfitted for civil life, has been one of the causes of bad recruiting. Soldiering since the war has been largely blind-alley occupation. The Navy offers a man a life career; the Air Force has many attractive features which the Army cannot offer and both have been serious competitors in the search for young men.

That the experiment, if successful, will have far-reaching effects on the Cardwell system, on reserves and on Army organization generally is obvious. An unqualified success would threaten the existence of the Regular Army Reserve as at present constituted, but that does not imply that reserves cannot be obtained by means other than those at present used. The experiment is a bold one, but it is one that deserves success if only for the reason that it is a serious attempt to tackle one of the most urgent Service problems of the day.

* * *

The Prime Minister made an important announcement in the House of Commons in August regarding the future control of air forces operating at sea.

The Fleet Air Arm.

The air forces concerned are of two classes: there is the Fleet Air Arm comprising aircraft carried in ships and operating from them. The Fleet Air Arm, which since 1923 has been manned chiefly, but not entirely, by naval personnel, has been under the operational control of the Royal Navy and under the administrative control of the Royal Air Force. Many objections have been made to this system of divided control. Then there are those squadrons, comprising seaplanes and landplanes which are based on home ports, but which are intended in war to be used at sea in co-operation with the Navy. These shore-based aircraft have been under the sole control, both operational and administrative, of the Royal Air Force.

The Navy has for long held that the aircraft of the Fleet Air Arm, unsuitable as they are for general service in the Air Force, are an essential part of the fleet and that dual control is cumbrous. As regards the shore-based squadrons the naval view has been that their full-time co-operation is essential to the fleet in European waters and that, without complete naval control, there is no certainty that such squadrons will always be available to the fleet in war. The Air Force view has been that rivalry between the Army and the Navy in the Great War over the supply of aircraft led to overlapping, that one Service should control the maintenance, training and disposition of all air units and should decide in war whether they are to be used at sea or over land.

It is to be hoped that the decision announced by the Prime Minister will mark the end of what has been a long-standing controversy between the two Services. In future the Fleet Air Arm is to be wholly naval, the shore-based squadrons, which may be used at sea or over land, will be exclusively under the control of the Air Ministry. The Admiralty and Air Ministry are to work out as soon as possible the practical steps necessary to give effect to this ruling.

"THE ABYSSINIA CONTINGENT"

DETACHMENT 5TH BATTALION (PATHANS) 14TH PUNJAB REGIMENT

By *Lieut.-Colonel W. F. Charter, M.C.*

This article deals entirely with the experiences and activities of the Abyssinia Contingent and not with the events of the Italo-Abyssinian War which did not directly affect the Contingent itself.

On 3rd August 1935, secret orders were received that, at the request of His Majesty's Government, a Contingent would be sent from India to Abyssinia to strengthen the Legation Guard for the protection of British subjects in the event of disturbances at Addis Ababa. [Nine Indian Other Ranks of the 8th (K.G.O.) Light Cavalry already formed the Escort to H. B. M.'s Minister in Addis Ababa.]

The strength and composition of the Contingent was detailed as under:

Three British officers.

One rifle company (less one platoon) at a minimum strength of three Indian officers and 100 rifles, to include one assistant armourer and one *mochi*.

One machine-gun section of two guns less drivers and mules. Followers on a rifle company basis.

All Indian ranks to be Sikhs.

The Contingent would be found from the 5th Battalion 14th Punjab Regiment.

Medical Personnel—

One British Medical Officer.

One Sub-Assistant Surgeon.

Two Nursing Sepoys.

The strength which actually entrained at Poona on 22nd August was:

Major W. F. Charter, Commanding.

Captain G. A. Keene, attached from 1st Battalion 16th Punjab Regiment.

2nd Lieutenant R. A. Anthony.

Captain T. E. Palmer, Indian Medical Service.

Three Combatant Indian officers, Indian Medical Department.

One Sub-Assistant Surgeon, Indian Medical Department.

129 Indian Other Ranks, including two Nursing Sepoys,
Indian Hospital Corps.

11 Followers.

Ammunition, arms, stores and equipment were on a scale which anticipated the possibility of a protracted siege of the Legation garrison and their British and British-protected subjects. A few items might be of interest; for instance, 200,000 rounds of small arm ammunition, 50 spare S.M.L.E. rifles, 2,000 grenades, 2,050 spare gas respirators and 10,000 sandbags. Nine and a half miles of barbed wire were taken from India and later supplemented by more than five times this amount. Three months reserve of rations for all ranks were taken, and later augmented by a further three months supply from Aden.

On August 23rd the Contingent sailed on the SS. "Jehangir," a Red Sea pilgrim ship of just 2,000 tons, which, however, was admirably suited, and indeed luxurious, for the numbers on board. The ship called at Karachi for 24 hours to pick up cargo, and when leaving that port it was still uncertain whether the ship would go to Djibouti direct or land the troops at Aden, to be transported later by a naval vessel. The cause of this hitch was political, the Emperor of Abyssinia needing great persuasion to allow armed foreign troops to enter his country and capital at so critical a time; hence the reinforcement to the Legation actually left India before permission had been given for it to land in Abyssinia.

On the eighth day at sea, of the eleven days' passage, a wireless message was received to proceed direct to Djibouti, where we arrived on 3rd September.

The landing, onward rail journey and arrival in the capital were conducted with the greatest secrecy. The area surrounding the jetty at which stores were landed was guarded by strong cordons of French Senegalese infantry, and the disembarkation of troops by lighters did not commence till after dark.

The special troop train halted the first two nights right out in the blue, not at the regular night halts, but drove on till well after dark and suddenly stopped. The country traversed being more than normally restive and dangerous, full precautions were taken by establishing strong defence posts for the all-round defence of the stationary train. Twenty Ethiopian armed policemen

who had reported at the Frontier for liaison duty on the train, were most surprised when detailed to patrol between piquets all night.

Regarding the train—the Franco-Ethiopian Railway has often been referred to as the most expensive in the world; this seems amply borne out by the bill for this train. It was admittedly the biggest rake that had ever been assembled and hauled, but the bill was the equivalent of £1,340 and 25 centimes.

The third afternoon was spent in a siding $14\frac{1}{2}$ miles from Addis Ababa with shutters drawn and surrounded at a distance by cordons of Abyssinian troops and armed police. At 3.40 a.m. the train drew into Addis Ababa station, which was in darkness and where lorries with lights extinguished were waiting. Curfew had been imposed in the city, streets were patrolled, and the station strongly guarded. The station lights were turned on for 10 minutes during which time the troops had detrained, taken their places in lorries, and the convoy departed for the British Legation.

The whole move from Djibouti to the Legation had been most efficiently organised by those responsible, and the sixty odd journalists, camera and news-reel men all failed to obtain contact with, or photographs of, the latest news item in Abyssinia.

Despite some sarcastic comments in the press regarding these precautions the fact remains that photographs of foreign armed forces arriving in the Abyssinian capital at that time could have been used to embarrass still further an already delicate situation.

On arrival at the Legation, apart from settling in the troops and general administrative arrangements, the first concern was to draw up a defence scheme. The sketch will give an idea of the area to be defended, and the main problem—the hill overlooking the Legation.

A further problem which arose was not a new one: on the one hand was the soldier with his entire concern concentrated on his one object of completing in the shortest time the military measures necessary to cope with all eventualities; on the other hand was the civil administration with a more delicate task to perform involving outside, and in this case international, policy. Some of the desirable defences were situated, as so often happens, in front of, or in this particular case outside, the area to be defended. Obviously (war had not yet been declared) it was unreasonable to expect to be permitted to construct defence works

on the private property of individuals whose Government was still ostensibly at peace. Another factor was that reinforcements having arrived for the defence of the British Legation, the eyes of all other Legations and of the Ethiopian Government were more than ever turned on the British Legation for any outward indication of policy.

For the above reasons only the more inconspicuous defence posts and barbed wire were dug and erected.

On 3rd October news was received of the bombing of Adowa and heavy fighting on the frontier. This brought the realisation that long-range bombers might possibly reach Addis Ababa and that the second city of the country, Harrar, was within comparatively easy range of the Italian base at Asmara. Apart from high explosive and incendiary bombs, there was a fear of the use of poison gas, so anti-gas protection and precautions occupied the attention of all.

The French and German Legations had already anticipated the possible danger, and constructed bomb-proof shelters but had not considered the matter of poison gas. In the British Legation Mark IV gas respirator containers had been received from England to replace the containers fitted to the respirators in possession of the Guard, and the 2,050 brought from India. These were all changed and tested. A case of 46 respirators was despatched to the British Consulate at Harrar. In the Legation itself air raid orders were drawn up for bombardment and gas attacks, the entire civilian staff were instructed in the use of respirators and put through a gas chamber test. The Legation cellars were gas-proofed and sealed with blanket doors and air locks. As opposed to the deep dug-outs constructed at other Legations we dug narrow zig-zag trenches two and a half feet deep in the vicinity of our lines and parade grounds, and near the offices and houses of the Legation Staff. Similar funk-holes were prepared in the eucalyptus wood to facilitate the dispersion of the troops in the event of sufficient warning being obtained of the approach of aircraft.

Scattered encampments of Ethiopians on the outskirts of the city, and in some cases comparatively close to the Legation, endangered the camp of the Guard in that it, being the biggest and the most obvious concentration, might, when viewed from a height, become a special target. Efforts were therefore made to

conceal our camp by reversing all tents, showing to the air the blue or yellow inner linings and arranging light brushwood on top and tying young trees to the ten poles. The result was quite successful but required constant renewal.

On October 7th the Diplomatic body met at the British Legation to discuss a scheme for the security of foreigners as the attitude of the local Ethiopians, and particularly of the hordes who would arrive from distant and more savage parts of the country, was an unknown quantity. This was the first meeting of what later became the Central Security Committee, a body whose meetings were regularly attended by the senior representative of Great Britain, Germany, France, United States of America, Egypt, Turkey, Greece, and later Japan. I attended all meetings to deal with the purely military side of the question, and France was represented by their Military Attaché, a senior Lieutenant-Colonel.

The first concern of this Committee was to consider the concentration of foreigners in one area outside the city, should control of the city get beyond the powers of the civil police. Briefly, a plan was formed whereby, on the breakdown of civil control, all foreigners should concentrate at the French, German and British Legations, while the large Greek community should collect in the compound of the Belgian Legation, a few hundred yards from the British Legation. A "Legation Area" would thus be formed at the foot of the hills to the east of the city. In this area the French were isolated, and distant from the German Legation about two miles, so, should the second phase of the situation, *i.e.* definite hostility towards, or attacks on, foreign concentrations occur, the French and their protégés were to close into the German Legation (yet to be fortified), thereby halving the Legation Area. Finally, should the situation become desperate, the Greeks, and all women and children from the German Legation would close into the defences of the British Legation followed by the men, French, German and protégés, who would fight a rearguard action assisted by the Sikh Guard if the last named were not already too hotly engaged in the defence of their own Legation.

The proceedings of the Central Security Committee were for obvious reasons kept secret.

On the following day I reconnoitred and laid out the tracings of trenches and posts for the defence of the German Legation, which work was gradually and unobtrusively completed.

In the meantime two large 60 cm. searchlights had arrived from Egypt, and these were erected where one could illuminate the hill overlooking the Legation and the site selected for the refugee camp, while the other would light up the big ravine and dense eucalyptus which ran the entire length of the north and north-eastern boundary of the compound.

One very serious situation, in view of the possibility of a concentration of 3,000 refugees for a considerable period under siege conditions, was shortage of water. The normal Legation supply was piped a distance of half a mile from a spring in the hillside, which spring was situated in a ravine and out of sight from the defences. The maximum supply from this source was 3,900 gallons a day, a yield which decreased very much during the dry season before the rains, at which time the possibility of the concentration was visualised. Apart from the pipe line there were a few small garden wells round the Legation buildings, the maximum production from which was 2,500 gallons daily and some of these sources were also liable to dry up before the rains.

In the event of siege the destruction of the spring of the piped supply would have been a simple matter, particularly at night, as owing to the high hills on three sides of it the spring could not be protected by the garrison available.

Ultimately sanction was received to sink a well if there were sufficient hope of finding water to justify this measure. The only person available who could claim any powers of water divination (in which it proved he flattered himself) was an Indian shop-keeper. Work was commenced and continued in a haphazard way on his selected spot in the paddock. I shall refer to the water question again later.

On October 13th Lieutenant Anthony was invalided to Aden and India.

By mid-November a certain amount of anti-foreign feeling became obvious. Minor instances of molestation of and insulting remarks to foreigners became frequent. It must be said, however, that this was in no way organised but the reverse, as the Emperor had issued strict orders as to the non-molestation of

foreigners. It happened chiefly on the arrival in the capital of armies from the wild interior whence they came with their chiefs to report to the Emperor and receive arms and pay. The general treatment meted out to foreigners up to and even during the destruction of the city was most exemplary and a great credit to the Ethiopians who are a most courteous race.

On 19th November Lieutenant Pearson of the 1st Battalion 12th Frontier Force Regiment (P.W.O. Sikhs) arrived to replace Lieutenant Anthony.

Throughout the dry season water was very short indeed, at times the troops only receiving $1\frac{1}{3}$ gallons a head per day. This in view of the possibility of the concentration of a further three thousand persons, was most disturbing, particularly as such steps as were being taken to sink the well were half-hearted. This acute water situation was communicated to the next meeting of the Central Security Committee.

Deeming the hill overlooking the Legation to be the key position in case of siege, frequent practice was carried out by the Guard in seizing the hill, and rehearsing, without material, the sangaring and fortification of the position. Anticipatory operation orders were drafted and issued to British and Indian officers in English and Roman Urdu. After further practice this operation could be put into effect at very short notice and all ranks were thoroughly conversant with their duties. This air of make-belief was unsatisfactory, but at that time it was quite out of the question to expect the Ethiopian Government to permit the building of fortifications by the British Legation outside the Legation grounds particularly as the situation visualising the necessity of this measure would have been obvious to all. Further, these preparations would have had a most adverse effect on the morale of the city from both Ethiopian and foreign points of view. As I have stated earlier, the attitude of the British Legation and British subjects was very closely watched by all nationalities in Addis Ababa.

On December 11th the first panic occurred in the city. The cause was possibly the receipt by an American camera man of a cable asking him for photographs should Addis Ababa be the next Italian bombing objective. The result was that complete panic broke out before daylight, semi-clothed shop-keepers with and without personal belongings left the city for the sur-

rounding hills, some paying as much as 100 M. T.* dollars for a car to take them ten miles. British and Arabs arrived at the Consulate by 7-30 a.m. but after being reassured returned to their homes. In the evening armed guards were mounted on the Legation gates to cope with panic-stricken crowds should these arrive in the event of another alarm.

On 1st December the remainder of the 5th Battalion (Pathans) 14th Punjab Regiment, while in camp at Koregaon, received orders to mobilise and to proceed to Aden, where they landed on Friday, December 13th.

On January 19th, another alarm in Addis Ababa was anticipated and precautions made to deal with crowds, but the British and British-protected communities kept their heads and set a commendable example of calm.

During the early part of the year the chief activities of the Contingent were practising air raid alarms, the establishment of the piquet on the hill, and wiring the defences; for the last named work all pickets had to be felled from the eucalyptus in the compound and trimmed.

In the middle of February the well, from which so much was hoped for, collapsed, with the tools at the bottom.

About this time I decided that, to secure the Legation further, the defences should be surrounded by two double-aprons of barbed wire, one of which aprons should be heavily entangled with loose wire. For this purpose a further 27 miles of wire, held in the city for the British Legation, was taken over. This gradual wiring of the defensive system spread over a period of three months, when there was no local danger or alarm, caused no comment or enquiry.

New buildings were now commenced in order to have more than half the troops who were still in tents accommodated under roofs by the time the four months' rains broke; other corrugated iron buildings in the scheme included an isolation and a general hospital, guard-room and explosive store.

March 6th saw the first Italian aeroplane over the city, at a great height, making a leisurely reconnaissance. This started the series of alarms and panics in the city, which alarms later became an almost monotonous interruption to normal functions as the numbers of British and British-protected subjects seeking "protection" increased with each succeeding aerial reconnaissance

* Maria Theresa dollars.—Ed.

or demonstration. On this first occasion considerable panic reigned and many fled the city. The opportunity was not overlooked by the bad characters who did a certain amount of looting. Before daylight next morning guards were mounted on both gates to control any refugees who might arrive. A small party of Indians, chiefly women and children, arrived at dawn and were accommodated under trees near a deep and winding nullah. Bad flying conditions prevailed and the guests were persuaded to return to their homes. However, two days later, as the dawn broke clear and sunny, more visitors arrived, the city was partially evacuated and all business at a standstill. Nothing happened but the city was becoming more and more nervous.

The barbed wire entanglements were meanwhile being thickened by degrees. Ammunition and explosives were divided between three well separated dumps in case bombs should fall in the Legation.

The beginning of aerial activity over the city turned the thoughts of all to the subject of poison gas, a problem which brought up some interesting points. Of all the communities present in Addis Ababa only the British and British-protected had been considered, and provision for them made by their responsible Government in this respect—I refer to 2,050 gas respirators brought from India. A confidential conference which was attended by the leaders of communities for whom the British Government were responsible, was called at the Consulate to consider the following points regarding issue of respirators:

- (a) Individual financial responsibility—the respirators available were worth considerably over £6,000.
- (b) Community responsible for organising the distribution and care of respirators.
- (c) Technical instruction in use and maintenance—suggested 10 per cent., after a course of instruction under the Guard specialists.
- (d) A monthly check.

After outlining this scheme the meeting adjourned for consideration by the leaders and judicious sounding of reliable and influential members of the communities. At the next and last meeting of the committee the spokesmen were unanimous in their decision not to accept the respirators for the following quite unforeseen, but on the face of it, sound reasons;

(a) Were the respirators issued to individual members of the British and British-protected communities the fact must become known, whereupon these persons would become marked men and when an air raid was predicted or occurred, the owners of respirators would be robbed of, or murdered for, the possession of the respirators—a very real danger.

(b) If the respirators were kept in small central batches for owners resident in close proximity the rapid issue of numbered and fitted respirators in an alarm, or raid, would become impracticable. Moreover, these storage places would become known and result in a rush of non-entitled, and probably murderous, people intent on possessing the means of immunity from inhaling poison.

There were other less important reasons but to these two reasons quoted there seemed no answer. For those responsible it was a great relief that anti-gas protection did not become necessary.

The delicate matter of fortifications outside the grounds of the Legation has already been referred to, particularly with regard to the establishment of the proposed three large sangars on the hill immediately overlooking the Legation and compound, which hill position was by now known to the troops as "Piquet." This forced unpreparedness was an ever present source of anxiety to myself.

As is usual in the building of sangars, the time to be taken in completing the work was governed by the supply of material and the length of the carry. The nearest available stones were at the ruins of an old fort crowning the main hill feature some 400 to 500 yards to the east; these were excellent material and already shaped; but when approached on the subject, the municipality replied that being a military fortification (though it had been a complete ruin for many years) it must be left *in situ* unless orders to the contrary were received from Haile Selassie himself—this did not help the project. After much thought a subterfuge was evolved and it was represented to the Municipality that the Legation roads were in urgent need of metal and the remetalling would be carried out during the rains, but the stone had to be broken and prepared before the end of the dry weather; further, the most suitable material was on the top of the hill. Ultimately permission was given for the necessary stone to be quarried by a con-

tractor. Before removal to the Legation the stone, roughly trimmed to square blocks measuring approximately 1 metre by $\frac{1}{2}$ metre by $\frac{1}{2}$ metre, was stacked in three piles, the sites of which were the selected sites of the sangars.

This preparation when completed reduced the estimated time of building, wiring, provisioning and garrisoning the post, if unopposed and only requiring a light covering party, to about six hours.

April 4th saw another Italian aerial reconnaissance, this time by a flight of five aircraft which arrived overhead at 7-30 a.m. The usual alarm scheme and precautions were immediately put into force. Warning of the approach, or arrival, of the flight was given by alarm guns on the surrounding hills. This visit lasted for 35 minutes during which one Abyssinian aeroplane was destroyed in the aerodrome and other planes and hangars riddled with machine-gun bullets. During the raid the wildest excitement prevailed among the native population, practically all of whom were armed. Abyssinians ran in all directions firing wildly in the air, and machine-gun fire was opened from the Palace area. In order to prevent "anti-aircraft" fire being opened by excited natives who might encroach into the grounds of the British Legation, work was started at 1-45 p.m. on strengthening the existing boundary wire with a loose wire-entangled single-apron fence on the inner side. At the same time orders were issued by the Minister requiring all arms and ammunition in possession of native servants to be surrendered. Few arms were confiscated in this way but the majority were at least hastily removed from the compound. The next day saw the arrival of the first refugees at 4-30 a.m. and wiring was continued at daylight and completed at 2 p.m.

On April 9th another meeting of the Central Security Committee was called and copies of printed instructions already issued to British and British-protected subjects were distributed to members of the Committee as a suggested guide for other communities. Members were asked to earmark suitable members of their communities trained in the use of firearms to take over defence posts in Stage III of the Defence Scheme, should this state materialise. Representatives of Great Britain, U.S.A., France, Germany and Turkey immediately volunteered their active co-operation.

On Easter Monday (April 13th) an aerial reconnaissance was carried out by nine Italian aircraft. The usual measures were put into force, and the British and British-protected subjects from among a large concentration at the gates were admitted to the hoped-for safety of the Legation compound. The conduct of the city populace on this occasion was in great contrast to that on previous occasions in that not a shot was fired from the ground, the result of proclamations issued by order of the Emperor that capital punishment would be meted out to any person firing at aircraft from the open town of Addis Ababa.

Dessie, the last headquarters of the Emperor, was captured on 16th April. This crumpling of the Abyssinian army opposing the Italian advance sealed the fate of the capital, despite advertised and attempted "last ditch" stands between there and Addis Ababa. The situation was now very grave. In consultation with Mr. Hope-Gill, H. M.'s Consul, administrative arrangements were drawn up for the accommodation, sanitation, rationing and watering of refugees and for the necessary transport for conveyance. The water situation was a source of great concern, no extra water yet having been produced by the incredibly poor efforts of those responsible for the sinking of the new well.

The next day was one of rapid wiring by the troops. One length of over 400 yards of double-apron fence entangled with loose wire "windlassed in" was completed by three small parties in 55 minutes, which was surely good work.

An emergency meeting of the Central Security Committee was held on the 18th, the most important decision arrived at being that, in view of the change in the military situation and the uneasiness of the native inhabitants, the best way of allaying the danger of disturbances would be for all foreigners to set an example of calm by remaining quietly in their residences; representatives of communities, however, kept in close touch with their subjects, and Legations remained open to any protected persons who might claim sanctuary.

On the 19th and 20th, refugees with tentage and furniture commenced arriving and were allowed to pitch their tents in the grounds. Realising that at any moment protected persons might abandon their calm and rush to the Legation in large numbers separate areas for communities were marked and fenced off, latrines dug, screened and labelled.

The arrival of these few members of the British communities was probably attributable to the panic effect of the mass movement which had occurred during these two days among non-British communities. Hundreds of Armenians, taking most of their worldly possessions, had retreated into the French Legation and all German women and children had been withdrawn into their Legation.

For the next few days the local situation became quieter and our refugee guests were persuaded to return to their homes. It is probable that this example of self-control on the part of the large Arab, Indian and Somali communities, also the example set by the white British subjects in the city, were the means of averting looting and rioting during the ten days of increasing anxiety prior to May.

At this time I had an opportunity of visiting other Legations already in an internal state of semi-siege. One in particular bore a marked contrast to our own Legation with its fully prepared but as yet unoccupied sites for the reception of protected subjects. The Legation in question had a camp of well over a thousand refugees spread over several acres. Tents of all patterns, shelters, and huts were erected haphazard without organisation; the camp had been in being for some days and no thought had been given to sanitation or the supply and chlorination of water. However it did possess a large café and gaily-coloured garden hammocks suspended between trees. In fact in some ways it resembled Epsom Downs on Derby day.

At this time the first waves of the broken army started to arrive from the north and a truly pathetic sight they made. The men had mostly been disarmed and robbed by brigands during their flight, all were at the point of starvation, clad in rags, and many exhibited open undressed wounds and raw gas burns; the women who accompanied them were in little better shape. The road was choked for two days with this exhausted rabble, some of whom had walked hundreds of miles existing on what they could find on the way.

The 1st of May was a busy day making final preparations for what appeared, and proved to be, inevitable—the fall of the capital with its attendant bloodshed and ruin.

It was realised that this day was the last opportunity for fortifying and occupying the hill dominating the Legation, to

which I have attached such importance, and the decision had to be made immediately either to build the fortifications, and detach nearly a quarter of the total force in its occupation, or abandon the project. The factors which governed the decision were, firstly, that the possibility of a protracted siege no longer existed—the Italian army pressing on as it was to its objective; secondly, rumours were still current of a proposed desperate stand by the Abyssinians on the outskirts of the city, and, thirdly, the moral effect on the population who were still comparatively calm; hell had not yet broken loose. Of these factors the second, that is to say the danger of the development of a running fight, which would pass round the Legation was the weightiest. This would probably result in the hill being held by Abyssinians and the shelling of our garrison in the middle of the defenders. Refuge inside the Legation might be sought by force by routed Abyssinians at a time when all the small Guard would be required to hold our own perimeter. The prevention of the Legation being used as a vantage and strong point to oppose the Italian advance was of paramount importance. I decided to abandon the hill plan and to maintain a close defence until the arrival of the Italian army, which was expected in two or three days.

Most of the day was occupied in conferences of the Diplomatic and Consular Corps and the drawing up of military plans to meet the several situations which might develop. Troops stood by all day. The section of machine-guns and their crews were concealed in a house immediately beside their gun position, ready primarily to engage the hill were it used to fire deliberately into the Legation grounds. The camp was ready and the administrative staff of volunteers under Colonel Stordy, C.B.E., D.S.O., the head of the Silver Star Veterinary Unit, detailed for their respective duties.

During the night heavy rain fell and the dawn was wet and misty. All was quiet and orderly until news arrived of the flight of the Emperor to Djibouti in a special train. When it was realised in the city that the head of the State and all authority had gone the carnage started in an incredibly short time. By 6-15 a.m. continuous rifle fire had broken out in the city. This steadily increased in volume and area, stray bullets commencing to fall in the grounds of the various Legations, and by 8-30 a.m. the mobs were well started in their first wild orgy of looting, murder and arson.

With the first outburst of wholesale bloodshed refugees commenced pouring into the Legation gates, where the guards systematically searched and disarmed all who entered, a wise precaution. Most were heavily armed with a strange assortment of modern and primitive weapons; even the voluminous skirts of the Greek clergy yielded heavy automatics and cartridge belts.

By 11 o'clock there was a large collection of destitute and very naturally frightened people within the gates, and, as close range but unaimed fire was passing through the trees above them, the camp was thrown open and all were conducted there, registered, and issued with coloured tickets according to their nationalities, which tickets tallied with the painted posts demarcating their allotted areas.

During this time cars and lorries manned by the armed, civilian staff of the Legation were scouring the city and rescuing individuals cut off in their houses. The Consul, Mr. Hope-Gill, telephoned for the leaders of all British communities to meet him at Messrs. Mohammed Ali's premises, which formed the largest trading establishment in the city and the agreed rallying point, and himself dashed off there to see if evacuation were possible. On arrival he found it too late, the post office nearby already in flames, and the city in the hands of drunken mobs. Defences were hurriedly erected and organised and an appeal sent by an Arab runner for twenty Sikhs and a light automatic gun to assist in the defence—the Arab never reached the Legation. Towards mid-day, Captain Taylor, the Military Attaché, went to view the situation and later brought back the message for reinforcements. Several challenges had been made to the defenders but overcome, sometimes by morale and persuasion, at other times by fire.

At 4 p.m. H. M.'s Minister called a conference at which I was asked to send this subsidiary garrison, and later other similar garrisons, and in each case I had no alternative in my judgment but to refuse, although I was prepared to make sorties for rescue purposes. It was a most unpleasant decision to make, realising that possibly, or probably, more or less helpless people were thereby being left to their fate at the hands of a mob. This question of weakening by detachment a force originally slender for its primary task received, however, a conclusive answer on the night of the 4th/5th to which I shall come shortly.

After the conference Captain Taylor took a lorry convoy by

a route avoiding the centre of the city and together with the Consul evacuated some 60 Bohras from the shop, leaving the premises under the protection of hired employees to whom more rifles and ammunition were promised and sent.

I have rather digressed and will return to the activities of the Guard during this day. These consisted of armed lorry patrols, which visited the German and French Legations at mid-day and again before dusk to ascertain their situation and the Greek and Egyptian Consulates where refugees were picked up. Although little, if anything, beyond supplying more arms and ammunition to the other Legations, could have been done to assist them if hard pressed, there can be no doubt that the constant patrolling of the area, and visits to Legation concentrations by disciplined convoys bristling with arms, had a great moral effect on both defenders and looters.

At dusk all battle positions were occupied for the night, while a continuous roar of rifle and automatic fire ascended from all sides.

The refugees, already 700 in number, had poured in all day and continued to arrive all night. Many were in pitiable condition, dazed, destitute and exhausted after dodging their way four or five miles through murderous mobs. During the evening rations were issued in bulk from the Guard's reserve and reissued to communities by the Volunteer camp staff, while, as working parties could be spared, assistance was given in pitching every available tent. Meanwhile stray bullets fell continuously into the open compound and all buildings were hit several times. Throughout the night the roar of small arms continued, the city was aglare, and wretched refugees arrived with their pathetic bundles, in lorries, cars and on foot.

Daylight on May 3rd revealed a heavy pall of black smoke hanging over the city, and an observation post established on the hill above the Legation reported crowds leaving the city in all directions after their night's orgy and carrying loot up to their physical capacity.

To deal with purely military events of the day, before referring to the work of the civilian staff of the Legation, early in the morning more rifles and ammunition were issued for despatch to Mohammed Ali's shop where the garrison was still holding out. Before 7 a.m. news was received that Dr. John Melly, Commander

of the British Red Cross in Ethiopia, was lying in the city shot through the lungs at point-blank range by a drunken looter, while attending the wounded. Four minutes after receiving the news an ambulance manned by a Sikh armed guard had left the Legation and later brought in Dr. Melly.

At mid-day it started to rain heavily, making conditions in the refugee camp miserable. Rations and firewood were issued.

During the afternoon a convoy of empty lorries protected by two rifle and one light automatic section left to visit Legations, patrol the area and bring in any whose positions were becoming untenable. The Belgians had decided to evacuate to the British Legation when the convoy returned from its rounds. At the next stop the Turkish Legation was found to be in a state of siege, with many dead bodies littering the road and approaches; there had also been minor casualties among the few defenders. On approaching the Legation gates the leading lorry was engaged, but the second lorry rounding a bend dispersed the attackers. The Turkish Minister wisely decided to evacuate to the British Legation on the return trip of the convoy. At the French Legation the situation was in hand, but, through lack of trained defenders and an organised defence plan, the scattered garrison was anxious and tiring and the camp, being spread over an unnecessarily large area, was very vulnerable to the considerable rifle and automatic fire constantly poured into it.

Leaving them to the prospect of a bad night, the convoy visited the American 7th Day Adventist Mission who after much indecision and waste of precious time were persuaded to evacuate their women and children. Back again to the Turkish Legation where in the interim more determined attacks had been made, and the casualties considerably increased. During the evacuation and embussing of the whole staff one or two further casualties occurred, but the convoy got away safely.

On the way to the British Legation, before returning for the evacuation of the Belgians and their protégés, a small girl child in one of the lorries separated from her mother, was wailing bitterly, but presently she became consoled and even content. On arrival at the Legation it was discovered that a kind-hearted and paternal Sikh had consoled the child with a primed Mills grenade, which the child was happily bowling on the floor of the lorry.

Having deposited the rescued at the Legation the convoy again set out for the Belgian Legation and evacuated all women, children and bullion, the Minister deciding to hold out with a garrison of four whites and fourteen professedly staunch Abyssinian servants.

At dusk a message was received from the United States Minister asking for a detachment of twenty Sikhs and a Lewis gun to be sent to his Legation to reinforce his garrison, and also asking for an armed convoy to evacuate the staff of the Sudan Interior Mission, who were reported besieged and unable to hold out any longer. Again the request for a sub-detachment had to be refused, but at 7-30 a.m. a convoy manned by fresh troops consisting of twenty-five rifles, a Lewis gun and carrying Mills grenades set out accompanied by the Consul to rescue the Mission and warn the U.S.A. Legation to be ready for evacuation, if desired, on the return trip of the lorries. The main streets were impassable, being blazing infernos, so the convoy had to proceed by a circuitous route, on the way driving over the Coronation triumphal arch which had collapsed. On arrival at the U.S.A. Legation the garrison were found having a hasty meal, the Sudan Mission had sent another message to the effect that their local situation had eased and they had decided to hold out. All women, except the Minister's wife, children and non-combatants were bundled into the lorries and the return journey started. One large lorry was left behind in case the garrison had to fight their way through the town to the British Legation.

Approaching the centre of the town another convoy, manned by the Military Attaché and armed civilians, was encountered driving hard for the British Legation; the evacuated personnel were Mr. Buxton, himself driving a lorry though shot through both legs, and his mission staff. This convoy had been ambushed, during which engagement two Ethiopian women mission workers had been shot dead in one of the lorries. The two convoys crashed on through the city and reached the Legation safely.

Now to recount some of the activities of the Legation and Consular staffs and civilian volunteers during this hectic day. In the early morning the Consul and other armed civilians ran lorries to Mohammed Ali's shop and delivered the extra rifles and ammunition previously referred to, loaded up foodstuffs for the camp and returned. These armed lorries were very formidable

propositions for anyone to impede, as apart from service and sporting magazine rifles they generally each carried one or more automatic rifles or sub-machine guns from the Imperial Armoury. Many rioters were, however, similarly armed, and for those who were unable to secure a brand new machine-gun by force the current price was four dollars a gun complete with magazines and ammunition.

During all this time the Volunteer staff of the refugee camp carried on their ceaseless work day and night with commendable tact and patience. Ration and water parties had to be organised and controlled, sick parades conducted, minor quarrels settled or smoothed over, sanitary, water and camp police supervised, a camp bakery oven built, and other administrative arrangements, too numerous to mention, made.

One member of the staff standing for a short time in the camp recorded the following consecutive string of queries and remarks addressed to another member of the staff in a few seconds:

"Can't you save my father and mother who are lying behind Fernades' shop?" "Do you call this a ration for a starving family?" "What the devil do you mean by letting those hordes go all over my garden for water?" "Do you know Dr. Junod of the International Red Cross is trapped in an outhouse just behind the burning Empire cinema?" "What shall we do with this corpse?" (an Arab shot through the head). "Why aren't there more tents for the Greeks?" "Where are the Italians?" "Why don't they send 'planes to machine-gun the shiftas?" (shiftas are the bandit gangs). "Pour l'amour de Dieu, sauvez-moi Soeur Marie."

A letter was received from the U.S.A. Minister asking that thirty-six Greeks who had taken refuge in his Legation should be evacuated to the British Legation on account of food shortage. The Greek Consul was sent for and ordered to produce nine Greeks, who would be issued with arms and three lorries, to bring in their compatriots. After much delay they left, to return later with the lorries stacked with comforts, furniture, pictures and knick-knacks from their own homes. These were thrown out and the owners again driven forth, this time to return with their countrymen.

Heavy rain fell all night making the camp a bog, but with all available tentage, tarpaulins, and several hundred sheets of corrugated iron, mostly run in from the Belgian Legation where no refugees had concentrated, everyone had a modicum of shelter. Throughout the night the roar of small arms fire continued on all sides and more exhausted and destitute refugees of all nationalities reached the safety of our gates. Next morning the registered refugees totalled over 1,500, apart from some 300 unregistered Ethiopian Mission workers and similar people in a separate area of the compound. On the morning of the 4th May after the extra night dispositions had stood down, a motor liaison patrol visited the French and German Legations where the situation was found to be well in hand and both garrisons appeared steady and confident. The town was quieter, but this had a disturbing significance for the Legations and what might be termed the suburbs, as it meant that all the easy pickings in the heart of the city were exhausted, with the result that individual looting was no longer possible. This resulted in larger and larger gangs being formed, capable of overpowering other gangs. This "snow-balling" of desperate parties of up to 200 men, many armed with machine-guns, continued until the Italian entry and had off-shoots in the form of rioters in cars and lorries shooting their way through the town and attacking defended houses on the outskirts. Signs of organisation among the gangs of looters were evident. Motor lorries and cars, including the Emperor's two best saloon cars manned chiefly by men of the Imperial Guard and bristling with automatic rifles, scoured the suburban areas in search of rich objectives which could now be attacked by their larger numbers.

Shortly after mid-day an armed lorry patrol was despatched to bring in the remaining British-protected subjects who were in difficulties in the Egyptian Consulate. Our observation posts on the hill were being heavily fired on by Ehiopians lurking in the eucalyptus, so were withdrawn, as casualties could not be afforded for the sake of early information regarding the approach of the Italian column.

In the afternoon more ammunition was despatched to the defenders of Mohammad Ali's shop and an Arab garrison who were still putting up a stout resistance in defence of their property. Rifles brought in by the Turks were collected and sent

to the Belgian Legation, Mills grenades to the U.S.A. Legation and S.M.L.E. rifles and ammunition were lorried across to the German Legation.

The evening liaison patrol found the French and German Legations holding out well though both were continuously fired into from most directions. The mobs were becoming more determined and very heavy firing increased in the city.

Shortly after dark, while rain poured down and the evening patrol of a light automatic section and some twenty-five rifles under Captain Keene was still out and overdue back, an Abyssinian ran in carrying a hastily scribbled S.O.S. note from the Belgian Minister, "Help, please, we are attacked." As this arrived a heavy volume of fire was heard at the Belgian Legation some 500—600 yards away through a dense eucalyptus wood. Within fifteen minutes a relief force of slightly less than a platoon under Lieutenant Pearson was on its way in lorries to relieve the situation. Five minutes delay would have seen the Legation in the hands of the mob, as, on arrival near the Legation gates, when the leading lorry fell in a ditch and the relief force jumped from the lorries, a party of approximately thirty-five Ethiopians, chiefly ex-soldiers of the Imperial Guard, were advancing upon the Legation building supported by covering fire of some 200 rifles from a flank. The Lewis gun was immediately brought into action over the Legation wall and the first magazine, fired at a range of about fifty yards or less from the flank of the attackers, crumpled the attack, the rifle sections then shot their way through the remainder and fought their way steadily forward to occupy the environs of the Legation on the hill. A look-out man having reported a prearranged Verey light signal from the battle area a further two rifle sections, who were standing by, were despatched under an Indian officer.

Above the noise of the rifle and Lewis gun fire of the Sikhs and the fire of the 200 or so Ethiopians could be heard more heavy fire from the big hill in rear of the Belgian and British Legations, which was to any intelligent person the obvious angle from which the Belgian Legation could have been rushed. Fortunately the section of Vickers guns had been laid on the lower slopes of this hill to fire low over the refugee camp and a few feet above the Legation building. These guns then traversed their target and the immediate effect was remarkable; apart from all

occupants of the Legation and refugee camp falling and remaining on their stomachs the hillside was cleared and all other firing ceased for a considerable period. The Belgian Minister and some ladies were escorted into the British Legation while several male refugees elected to remain under the protection of the Sikh garrison.

On receipt of Lieutenant Pearson's written report of his success ammunition, grenades and Verey lights were sent across. The fourteen staunch Ethiopian defenders previously referred to had taken no hand in the defence and were sitting in a circle on the floor of the drawing-room as occasional bullets were coming through the window. To their surprise we disarmed them and locked them up in a room as useless and possibly dangerous.

Rain poured down all night and the troops had a miserable night lying without protection in hastily constructed positions.

During this engagement Keene and his convoy returned and formed the garrison of the British Legation together with some twenty or so men still in the Legation. At a hurried conference the British and Belgian Ministers advocated withdrawal from the Belgian Legation. I decided, however, that the position must be held at all costs as an evacuated Legation in the heart of the Area would draw thousands of armed looters from the city, who after sacking it, would turn their attention to the British and German Legations.

With our depleted garrison the situation was very serious. It was impossible to foretell the next, and probably bolder, move on the part of the rioters. However, volunteers came forward to assist in holding our defence posts. Two posts were manned by civilians of mixed nationalities, one under the command of an ex-Turkish corporal of the Great War and the other a combined British and American post under an English newspaper reporter and ex-soldier; a civilian reserve was also picked, armed, and quartered in a tent at the Quarter Guard. During the night posts at the Belgian Legation were twice in action against minor and undetermined attacks while the Turkish post in the British Legation kept up intermittent fire all night.

During the 4th May, the events of which day I have just described, an S.O.S. message was received from the U.S.A. Legation, five or six miles away, again appealing for twenty Sikhs and a Lewis gun to reinforce their garrison. This message had been

wirelessly from the Legation six miles away to a U.S.A. radio station in the Far East, relayed to San Francisco, to Washington, and telephoned to London, from where it was wirelessly to Aden and Addis Ababa. The message was received in less than four hours after despatch, and a reply sent by the same route regretting that Sikhs could be spared less than before owing to the garrisoning of the Belgian Legation, but that were the Americans prepared to evacuate a rescue convoy would be sent immediately.

It might be asked: why was this roundabout method of communication necessary over a distance of a bare six miles? The reasons were three: the Ethiopian telephone system, at best a wearisome and undependable concern, no longer existed; visual communication by heliograph or lamp with the U.S. Marine personnel at their Legation was, owing to the intervening dense eucalyptus woods and Palace hill, impossible except from the top of the main hill feature some 500 yards beyond the perimeter; one set only of radio-telephony apparatus had been "come by," and this had been installed between the British and French Legations to keep in touch with the situation at the latter refuge, in case a withdrawal from there, in accordance with the original defence scheme, became necessary.

I will now refer back to a passage in an earlier part of this article regarding the refusal to detach parts of the very small force in the British Legation. It is suggested that, had garrisons been sent as appealed for, to Mohammed Ali's shop, and the U.S.A. Legation, and had the attack on the Belgian Legation developed, as it did, during the absence of a large patrol, both Legations would probably have been over-run by weight of numbers encouraged by the first success against organised resistance.

Shortly after daylight on May 5th, Captain Keene took fresh troops, a Sub-Assistant Surgeon, barbed wire, pickets, sand-bags, rations, reserve ammunition and other stores and relieved the saturated shivering garrison of the Belgian Legation. During this relief another round-the-world appeal for help was received from the Americans, so a large convoy sufficiently well armed to deal with hostile mobs left immediately, and, after it had been explained to the Minister that this was probably their last chance of evacuation, the American garrison reluctantly collected what valuables they could in the half-hour given and were brought into the British Legation. We had now within our wire over

1,700 refugees. The rain had subdued most of the fires in the city and the stench of smoke, smouldering material and rotting mutilated bodies was almost overpowering.

By now all foreigners except the two garrisons at Mohammed Ali's and the Arab stronghold were concentrated in the three Legations and there remained nothing but to await the arrival of the Italian Army.

At 2-15 p.m. a distant roar was heard drawing closer and at 3 p.m. the head of the column passed the British Legation, from which time till after daylight the next day huge lorries streamed past without interval. Regarding the entry and occupation of the city it suffices to say that the motorist column approached and passed into the city with no form of protection or even advance guard.

Only half the city was occupied that day, the other half being left in the hands of the rioters, who at night took full advantage of their last opportunity to burn, murder and destroy, and in that quarter the reign of terror continued. The refugee camp was kept intact and nobody allowed to leave the Legation though many desired to return to the city and learn the full extent of their material losses.

In the morning, the 6th May, on a liaison visit to the Belgian Legation garrison all was found in order, sandbag emplacements and rapid wiring having been erected. During the previous night one attack had been made and dispersed by fire. An Italian staff officer arrived on a round of Legations and handed out proclamations assuming full responsibility for the safety of all foreigners. On this it was expected that our garrison would be withdrawn, leaving the Belgians without armed protection. When the staff officer was informed that the Sikhs would remain till the Officer Commanding was satisfied that the necessary relieving Italian garrison was sufficiently strong to guarantee security, arrangements were made for a guard of Marines of the San Marco Battalion. At 5 p.m. sixty-five Marines arrived and the Sikhs withdrew.

From 10 a.m. the refugee camp started to disperse and by the evening of the 7th the last refugee had left and the gates were closed.

The next few days were spent in stock-taking and the discreet collection of arms and ammunition issued during the

disorders. Then a telegram from home was interpreted as an indication that the Guard would be withdrawn almost immediately, so trenches were filled in and the packing of stores commenced. This pleasant work was discontinued, however, when on 22nd May intimation was received from the Foreign Office that the situation was not considered sufficiently stable to justify the withdrawal of the Guard. With this the rains started and all realised that there would be no release till after the dismal period of four months continuous rain.

Work was then commenced on reconstructing the defences, built up sandbag posts replacing the previous dug-down trenches; these gave better observation over the long grass which grows in the rainy season and solved the difficult question of drainage. The building of these massive posts, like small fortresses, continued during June and proved an interesting occupation; in the construction of one post alone, No. 4, six thousand sandbags were used. All posts but two were connected by field telephones and to a central exchange at Headquarters.

On 2nd July, the Charge d'Affaires, Mr. Roberts, called a conference to discuss the local situation and security measures to be taken. The local Italian military situation was still insecure and there was open talk in the town of a concerted internal rising and attacks on the city by massed undefeated elements of the army. Foreign residents did not conceal their very natural state of alarm. It was decided again to organise arrangements for the reception of refugees, this time on a considerably larger scale than previously as there was little doubt as to which Legation afforded the most adequate protection and to have defence measures ready for an emergency at the shortest notice. These preparations consisted of a new alarm scheme, whereby posts could be manned and the reserve concentrated in ten minutes, day or night. Nine canvas nosebags, each containing 24 primed grenades and nine more holding Verey pistols and cartridges, were kept standing in rows at the Quarter Guard, to be picked up by men passing on the way to their posts. All ranks slept with their rifles, equipment and field service scale ammunition beside them, machine-gun water jackets were kept filled, and Lewis gun springs at firing weight, the guns being out of their chests and ready to be picked up with the ammunition as the troops ran past.

Since the riots of May more armament for the Legation Guard had been "acquired" in the form of two light automatics, one a Browning Mauser and the other a Brenn, each with several hundred rounds of ammunition. Short courses of instruction in the handling of these weapons having been held, more than 50 per cent. of riflemen could handle them in an emergency, so the Browning was allotted to No. 4 Post and the Brenn to the Reserve.

The next afternoon I went to Mohammed Ali's shop with the Consul to draw up a defence scheme for the premises and ensure that the staff were sufficiently well supplied with arms and ammunition.

The cause of these preparations was the open unrest in the city and the presence of small armies each of several thousand men, well armed with machine-guns and ammunition, who were roaming within a few miles of, and closing in on, the city with the avowed intention of making a concerted attack from several directions. The Italian aircraft were inactive, the army tied up in Addis Ababa, and the bandits getting bolder. Various dates and stages of the moon were nominated for the big attack and a state of very real alarm prevailed. The previous bogey of Piquet Hill again came to life. An attack would probably be made by many thousands emerging from the eucalyptus and pressing their way forward by weight of numbers into the yet practically undefended town. It was clear that my proposed poor little garrison on Piquet Hill would only be swamped and so reduce the Legation defenders by nearly a quarter of their effective strength. Hence again I decided on a close defence behind a mass of wire. As extra wire was necessary outside the Legation compound limits, Marshal Graziani was approached and gave an encouragingly free hand in this measure, there being no doubt that the best strong point in the defences of Addis Ababa was the British Legation. Then wiring commenced in earnest. The weakest part of our wire when finished consisted of two double-apron fences, one of which was thoroughly entangled with windlassed-in loose wire. In all sixty-one miles of wire was used. Each post was provided with shelter in the form of a tin roof or tent stretched on light beams, and we felt secure and ready for what might happen. The two big coast defence searchlights were tuned up once a week and each had an operator

and assistant detailed. The camp was prepared, more registration tickets printed, all tentage stacked on the site, 10,000 man day rations taken in, firewood stacked under cover, and the camp oven frequently tested.

On 6th July parties of men were set on to fell all eucalyptus outside the compound to give the desired fields of fire to the posts. In the meantime the Italians had made a strong point on the main feature overlooking Piquet Hill, and had mounted a battery of mountain guns on the hill; this was very comforting and confirmed my decision to abandon the idea of our holding Piquet Hill. The Italian artillery spent this day registering targets on all sides of the city. By this time the road to Dessie and Asmara had become impassable for motor transport so that the only communication was the narrow gauge railway which was liable to be cut with impunity.

The days dragged on in this state of tension with more or less incessant rain. Minor actions on the outskirts of the city became more frequent and heavy bursts of firing occurred almost every day and night. The Legation compound had become a bog.

The Italians kept to themselves all information regarding concentrations of Ethiopians but stories from the town emphasised the imminence of attacks and the presence of large bodies of troops nearby. The truth of these rumours became apparent on 26th July when a flight of Savoia heavy bombers carried out considerable bombing operations some five miles west of the city. During that night heavy rifle fire on the western outskirts indicated either a battle or a bad attack of nerves on the part of the defence posts. Next day a further aerial bombardment was observed in the same area as on the previous day. On the 28th there was general apprehension of a night attack on the city being launched within the next three nights. One source of information had previously proved reliable so emergency measures were put into force, the gate guards doubled and telephones connected to all lines. The French Legation Guard had similarly doubled its precautions. Not till mid-day did information reach the British Legation, four miles south of the city, that at dawn two Ethiopian attacks had developed from the hills to the north of the town, that one had been driven off after severe fighting and that the other fight was still proceeding on the edge

of the city, small parties having in fact fought their way into the centre of the city before being wiped out. The key defence posts of the British Legation were then manned. Shortly after 1 p.m. the aircraft were bombing two miles north-west of the city and automatic and rifle fire could then be heard distinctly. Later, rifle and automatic fire broke out in a new area, west of the city and about a mile from the Legation. At 3-30 p.m. intense rifle and machine-gun fire started to roar in a dense eucalyptus wood some 400 yards from the Legation gates. The full defence scheme was manned in eleven minutes and it was realised that the battle was on.

This engagement continued for two hours without a lull and an aeroplane flying low over the battle was engaged by automatics from the ground so flew away unable to obtain any observation on account of the density of the trees. At dusk the battle was renewed with great fury, the concerted noise of heavy machine-guns, automatics, rifles and hand grenades at such a close distance being deafening. This died down after half an hour, to be continued at 2 a.m.

The next day, 29th July, the Italians, 32,000 strong in Addis Ababa, called on further resources to destroy or evict the Ethiopians, variously estimated at 500 to 2,000 (the former probably being more accurate). At 9 a.m. the batteries covering the hills above the Legation opened fire on targets to the south and south-east of the woods, firing directly over the Legation, while a flight of six Savoia bombers circled helplessly over the battle until driven off by automatic fire. During this time our troops were making full use of the bullet-proof cover afforded by their sand-bag posts as bursts of machine-gun and rifle "overs" were continually falling in the grounds and all buildings were hit. One defence post found itself for some time directly in the effective beaten zone of an unseen machine-gun in the trees, but no casualty occurred.

It was interesting to watch, from the high ground of the Legation compound, companies of Ethiopian troops deploying in the open and advancing into the woods in an encircling movement.

The battle continued all day. During the afternoon a Sikh N.C.O. in a defence post, while pointing out some object, was wounded through his pointing hand by a bullet from the battle

area. Meanwhile rifle and bursts of machine-gun fire continued to register on Legation buildings. A bullet which passed through the hospital between two occupied beds restored all patients but one to immediate health far more quickly than anything prescribed by the medical profession.

At 4 p.m. further Eritrean reinforcements arrived in lorries at the Legation gates as an assembly position; officers held a conference while troops inspected and loaded heavy Fiat machine-guns. The conference was interrupted while the officers chased a clumsy machine-gunner who accidentally fired his gun a few yards from the conference. The lorries which had brought the reinforcements were utilised to remove the casualties from the action to the city.

At 5 p.m. the Legation gate guards were withdrawn to the line of the strong defensive wire as it appeared probable that during the night the fight might develop immediately at the gates, should the attackers try to cut their way to the city and thus raise their confederates in the town.

At 6-30 p.m. approximately 1,200 troops with mountain artillery withdrew hurriedly into the town, followed later under cover of darkness by the reinforcements referred to above, who were presumably sent out to cover the withdrawal. Thus this small determined band of Ethiopians were allowed to break off the action and return to the hills unsuccessful but unbeaten. The night was quiet, the battle area being unoccupied except by the dead. Two motor lorry patrols visited the area, the first one continually firing machine-guns and throwing grenades without any provocation or targets.

The next day, 30th July, strong rumours were current that the Ethiopians, encouraged by the failure of the defence to annihilate the ill-armed bands of attackers, intended to launch heavier attacks on the city in the immediate future. Mills grenades were issued to the American Legation at the request of their Minister. During the afternoon more Eritrean infantry and a pack battery withdrew at the double into the city, the officers bringing up the rear belabouring the mules. The day passed quietly and on the next day normal conditions prevailed. In the Legation, however, guns were kept in position and all emergency measures ready for immediate action. The weather conditions were wet and miserable.

August was a wet and trying month being the third of four months of heavy rain. Training, instruction, and recreation were devised, through force of necessity, on quite unusual lines. A generous supply of games and sports appliances had been received in answer to an appeal addressed to the India Office. Webley air pistols for a miniature range were augmented by air and .22 bore rifles either purchased or unclaimed by refugees from whom they had been confiscated. For lack of space intersection fire order competitions were carried out with darts, barracks resembling the bar parlour of a public house on a Saturday night. Skipping competitions consisted of endurance and fancy skipping, apart from relay races. Footballs were converted into medicine balls for indoor use, while under a platform the punch ball was very popular, many a Khalsa developing a punch worthy of a heavyweight champion. Company concerts in the evenings were a great success and "turns" were worked up and practised with much enthusiasm.

The outstanding event of this month of deluge was the finding of water in the new well, some five months after it was required.

Minor actions continued to be fought on the outskirts of the city, and larger actions further afield with much aerial reconnaissance and bombing. Artillery was constantly active. This state of affairs continued until the middle of October, but as the further raids on the outskirts of the town, the repeated cutting of the railway and the losses sustained by small Italian columns did not directly involve the Legation Guard I will not touch on them.

Early in November the glad news was received that the withdrawal of the Guard, including the Cavalry Escort, was under consideration, so work was started on checking and packing stores and material. The Italian High Command were very ready to assume responsibility for the safety of the British Legation subjects and property; further Marshal Graziani was prepared to accord every facility for the withdrawal of the Guard, and signified his intention of calling at the Legation to meet the officers, of providing army transport for the move and a guard-of-honour at the railway station, and that he would be present in person at the departure of the special troop train. These proposals having been cabled to London and meeting

with the full approval of the Foreign and War Offices, the work of packing and demolition of subsidiary posts and some wire entanglements went ahead apace.

Every assistance and military courtesy was extended to the Guard on their departure, but the train journey to Djibouti was not lacking in interest. All trains from Addis Ababa to the French Somaliland border were normally provided with an escort of two or more platoons of Italian or Eritrean troops armed with automatics and heavy machine-guns, to say nothing of rifles, ammunition, and bayonets in the luggage racks for the use of passengers. That was considered sufficient—and on a trouble-free run it was; but in not a few cases when the line was cut it had proved quite inadequate, with fatal results to the train garrison and passengers. For our troop train a guard of two platoons of Askaris with light automatics and a section of machine-guns was provided under the command of a most efficient Lieutenant of Bersaglieri seconded to the native army. The armament of the Guard for the journey consisted of 126 loaded rifles, 3 Lewis guns with magazines on, a section of Vickers guns half loaded in a central goods wagon with the doors open, and canvas buckets of grenades and others of Verey lights and pistols in each wagon and carriage. An alarm scheme was drawn up for immediate detrainment and deployment.

The train was scheduled to run straight to Djibouti, not halting at night as was the normal routine, and to arrive in 36 hours. One of the greatest difficulties of the Franco-Ethiopian railway under the conditions of the time was water supply. The supply trains were required to run daily on water from wells which had been sunk to provide only two trains a week during the Ethiopian regime. On the second evening of the journey the train stopped at a small station, having insufficient water to reach the next station; an "up" troop train of Libyans was also in the station, having been there 24 hours as the engine driver complained of stomach ache. Before dusk the station area was organised as an outpost position with all round defence, the Askari escort taking over their sector, and the Libyans, after recovering from their surprise at being asked to hold a sector, co-operating willingly. After taking up night dispositions some enterprising person discovered a railway wagon half full of water so the engine was replenished by hand with tins and buckets,

(NOT TO SCALE)



after which the train suddenly pulled out of the station leaving behind the outposts till held up by an Askari post on the line.

Next day the train was detained six hours as the single line ahead was blocked by an engine and four wagons which had run away, the engine of which had fortunately soon run short of water. A troop train was reported derailed behind. When the runaway train had been hauled back to a station, our journey continued till the train stopped suddenly and an engine driver was seen running hard across the desert. A section of Askaris rounded him up after a good chase and once more the train crawled on its way. Ultimately the escort left us at the Frontier and we reached Djibouti 12 hours overdue on a 36 hours journey.

The next minor difficulty was the laziness and inefficiency of the Arab loading gangs, possibly owing to heat and Ramzan. It appeared certain that the ship would be delayed a further day in port, but the Sikhs again rose to the occasion and turned stevedore. Being able to lift and handle three or four times the weight managed by an underfed coolie, the loading and stowing was rapidly finished. The ship left only two hours late on its original schedule.

The return voyage to Bombay was uneventful and extremely slow, ten days being taken between Aden and Bombay, the little pilgrim ship steaming at a speed of 6.2 to 7 knots; but even so India was ultimately reached on December 7th, and Poona the next day. Thus ended a little expedition packed with interest and emergencies far beyond our most sanguine hopes at the outset, but which for weary months of virtual imprisonment had tried the tempers and patience of all without, however, making any impression on the discipline or cheerfulness of the 142 Sikhs who had been isolated in Africa for 14½ months.

THE INDIAN SOLDIERS' BOARD

BY MAJOR D. F. W. WARREN

The Indian Soldiers' Board, like many other valuable institutions in India, was bred (out of Paper by Military Officialdom) for quite a different purpose from that which it now serves. The child of this union, unlike some of its more unfortunate brothers and sisters, has turned out better than could have been expected, and in spite of a number of childish complaints (which appear at one period to have included infantile paralysis and sleepy sickness) is now, at the age of eighteen, a well-grown lad, with great possibilities.

The story of the Board's birth and the vicissitudes of its childhood and adolescence are in themselves an outstanding example of how all things work together for good in spite of the best-intentioned efforts to steer them into other courses.

Early in 1918, a United Provinces civilian, serving as an I.A.R.O. subaltern with an Indian cavalry regiment in France, put up a note to the Government of India in which he claimed the Civil Servant's privilege of criticising the Government. He then proceeded to make certain proposals for rewarding Indian soldiers by a policy of land alienation and expropriation of large land-owners. Besides these proposals, most of the recent election programmes of extremist Indian political parties appear moderate and restrained. Wrapped up in his rather lengthy note, however, were a number of valuable suggestions, and the contents of his paper were seriously considered by the Home Department, the Army Department and the Adjutant-General's Branch at Army Headquarters.

It was generally agreed that *something* should be done, and that the child when born would be worth preserving and should be held by somebody. But who was to hold it? The Adjutant-General's Branch suggested the Home Department and the Home Department said that it ought to be the Army Department.

Finally it was realised that an organization for looking after the welfare of the ex-soldier was excellent recruiting propaganda, and in October 1918, just before recruiting on a world war scale ceased, the Central Recruiting Board, a mixed civil and military

body under the general control of the Army Department, volunteered to adopt the child and see what could be made of it.

With the almost immediate ending of the Great War and the consequent slump in recruiting activities, the Central Recruiting Board was able to turn its whole attention to the welfare of the ex-soldier. The demobilization of an Army of half a million men was a problem that had never had to be faced before, and the Government of India was somewhat nervous about the results of releasing so many men at once; so, with the approval of all concerned, the Recruiting Board turned itself into the Indian Soldiers' Board and the Provincial Recruiting Boards into Provincial Soldiers' Boards, with the primary object of rewarding, compensating or otherwise satisfying the demands of the brutal and licentious soldiery. The Central Recruiting Board held its last meeting on the 28th November 1918, and the Indian Soldiers' Board its first meeting on the 23rd January 1919—just nine months after the I.C.S. cavalry subaltern had started things moving. Except for a change of President and the addition of one member, the personnel of the two Boards were identical and the new Board, like its predecessor, was administered under the Army Department.

The objects of the Board were given in a Government of India resolution as follows:

"The Government of India have decided that the functions of the Central Recruiting Board should now be definitely held in suspension and that in its place a new Board, to be called the Indian Soldiers' Board, should be established to advise on questions affecting the interests of serving, discharged and deceased Indian soldiers and non-combatants and their dependants. Its composition and membership will be the same as that of the Central Recruiting Board, but the Honorary Secretary of the Indian Imperial Relief Fund will be added as a member, and the Honourable Sir George Lowndes will take the place of the Honourable Sir William Vincent as President.

The Indian Soldiers' Board will be affiliated to the Army Department of the Government of India, and will deal particularly with the following subjects:

- (1) The formation of district records of war services which may serve as the basis for the future action of this Board.

- (2) Consideration of questions connected with land rewards or grants.
- (3) The question of obtaining preferential treatment in Government employment.
- (4) Educational concessions for children.
- (5) The after-care of the wounded and incapacitated soldier.
- (6) The safeguarding of the general interests of soldiers by provincial and district committees, who should specially watch the interests of soldiers absent from their homes.
- (7) Consideration, in collaboration with the military authorities, of the whole subject of demobilization in its civil aspect, in relation to prevailing economic conditions and the general interest.

The solution of these problems depends largely upon the action taken in the several provinces, and all local Governments and Administrations have been addressed with a view to preserving the provincial Recruiting and War Boards—reconstituted, if necessary, in form and composition—as a nucleus to advise on these questions.”

This resolution has been quoted in full, as it shows the Board's original terms of reference. It will be seen that at that time the Indian Soldiers' Board was very largely taken up with the immediate demands of demobilization, war casualties and war rewards, though the inclusion on the Board of the Honorary Secretary of the Indian Imperial Relief Fund is an indication of the Board's more permanent duties. Most of the Board's ephemeral tasks were completed by the end of 1922, and with the advent of peace its duties gradually adjusted themselves to changed conditions; they continued, however, to centre round the welfare of the Indian soldier, past and present, and that of his dependants. In 1924, these duties were defined generally as “the construction and execution of such measures as may be found from time to time necessary in order to protect the home interests of the Indian soldier and to assist where necessary in establishing ex-soldiers in civil life;” and then, as now, one of the Board's main duties was the administration and distribution of a number of relief funds.

Though some of these duties were not defined in so many words until 1924, considerable progress had already been made on the lines indicated. In 1920, a scheme was formulated which had

as its object the creation of District Soldiers' Committees, controlled by the Provincial Soldiers' Boards and co-ordinated by the Indian Soldiers' Board. The idea underlying this proposal was not new, for District Soldiers' Committees had been in existence and doing valuable work in Madras and the Punjab for many years, and Provincial Soldiers' Boards existed in all provinces. The extent of the operations of the various Boards and Committees and their composition and influence varied, however, in different areas, and the need for co-ordination and direction had become increasingly apparent.

This scheme was generally approved by all the provinces and administrations from which the Indian Army recruits and the work of organizing or reorganizing District Boards and Committees was taken in hand. By September 1923, there were nearly seventy local organizations in existence in the various provinces and States. During 1923 these organizations dealt with investigations regarding pensions, arrears of pay, finding employment for discharged soldiers, distribution of medals, investigation of applications for relief from funds at the disposal of the Indian Soldiers' Board, tracing of individuals who had ceased to communicate with their families, inquiries regarding land grants and *jangi inams*, furnishing of *nerrick* rates to military units, verification of recruits, grant of educational facilities, maintenance of lists of serving and deceased soldiers, procuring of legal assistance for absent or disabled soldiers, and help for soldiers' families in cases of disease or famine.

This is a formidable list and it will be seen that District Soldiers' Committees, in addition to their normal task of keeping up the spirits and morale of the military classes generally, were already carrying out a great deal of unpaid liaison work for the Army.

The system as originally instituted worked after a fashion, but owing to a number of reasons, amongst which were post-war lethargy and lack of official support and encouragement, civil and military, it was found necessary to strengthen the local organizations and put them on a uniform basis. Up till this time District Soldiers' Boards had been purely voluntary bodies of little standing, with no paid staff and varying in name and objects from the "District Soldiers' Board" proper, through "Indian Officers' Associations," to the "Hoshiarpur District League of Order." In

1931, on the recommendation of the General Staff, all District Soldiers' Boards were put on a uniform footing, with the civil head of the district as President and a serving soldier, who was either a recruiting officer or an Indian Army officer detailed for the purpose by Army Headquarters, as Vice-President. In the North-West Frontier Province the composition of the District Soldiers' Boards was somewhat different, for here the President was a soldier (generally the local Brigade or Station Commander), while the civil head of the district was Vice-President of the Board. Important Boards were given a paid secretary or a clerk—in some cases both.

Under this system the District Soldiers' Board became the local executive organization and its duties were defined as follows:

- (1) Constantly to endeavour to promote and maintain a feeling of goodwill between the civilian and military classes.
- (2) To give all assistance to the President of the Board in his capacity as head of the district in all administrative matters connected with the ex-soldier and his family.
- (3) To demonstrate the benefit of, and so promote the desire for, mutual co-operation between ex-soldiers and civilian officials.
- (4) To represent and explain to the civil authorities all matters of particular moment to ex-soldiers that require the attention of the local administration.
- (5) Generally to watch over the welfare of the ex-soldier and his family and the interests of serving soldiers absent with their units.

This organization was a great improvement on the previous lack of system, but it still had certain disadvantages. Recruiting officers are busy men who naturally pay most attention to those parts of their areas which provide them with most recruits. Indeed, as under the system then in force they could only draw travelling allowance when on recruiting duty they could hardly be expected to do otherwise. Civil heads of districts are also generally more apt to interest themselves in the affairs of ex-soldiers in those districts where military service is still a live issue, and not merely a rather pathetic reminder of the Great

War. At the same time, the interests of ex-soldiers and their dependants in the more heavily recruited areas are, to a certain extent, looked after by units and it is the "forgotten areas," which provided nearly half our recruits in the Great War but from which very few men are now taken, that require most assistance. One result of the 1931 reorganization, therefore, was to increase the efficiency of the better Boards, while allowing the weaker ones to remain in a state of neglect and decay. "From him who hath not shall be taken away even that which he seemeth to have."

This state of affairs continued until October 1936, when a further effort was made to raise all District Soldiers' Boards to the level of the best—and that is very good indeed. There was no interference in the internal constitution of the Boards. The President is still the Collector or Deputy Commissioner, and he is still assisted by a regular Indian Army officer as Vice-President, but in order to preserve continuity and provide supervision it was decided to make Indian infantry training battalions and similar units, which were not liable to changes of station, responsible, where possible, for providing the military Vice-Presidents for the District Soldiers' Boards in the vicinity. The Commandant of each training battalion was made responsible for detailing the military Vice-Presidents of the District Soldiers' Boards allotted to his unit, and for the general supervision of their work. At the same time full advantage was taken of the experience and influence of recruiting officers, who were appointed additional Vice-Presidents of all District Soldiers' Boards in their areas. Allotments of travelling allowance were also made to a number of Boards to enable military Vice-Presidents to tour their districts or to sanction allowances to members touring on Soldiers' Board business.

It was hoped in this way to interest units, rather than individual officers, in the welfare of ex-soldiers in the neighbouring districts, and so to remove the principal objection to the earlier system—the objection that certain fortunate districts thrive at the expense of others less fortunate, while all Boards were dependent for their efficiency on the fortuitous presence of keen civil or military officers.

The result of this measure has exceeded all expectations. Units providing the military Vice-Presidents, with a very few

regrettable exceptions, have thrown themselves into the work of improvement, reconstruction, and in some cases resurrection, with a keenness beyond all praise. Boards which had appeared to be dead for years have already taken a new lease of life and are now going concerns, with efficient sub-committees working in tehsils and zails. The keenness shown by military officers is stimulating interest amongst civil officials and raising the morale of ex-soldiers which was at rather a low ebb owing to recent political events in India. Ex-Indian officers and soldiers are beginning to realise that the Indian Soldiers' Board is an efficient organization, which can and does help them in a number of ways, and are giving their own local Boards a measure of support never given them in the past. The immediate result is thus to strengthen the Boards and to increase their power for good and, incidentally, to raise the prestige of the soldier among his fellow-citizens.

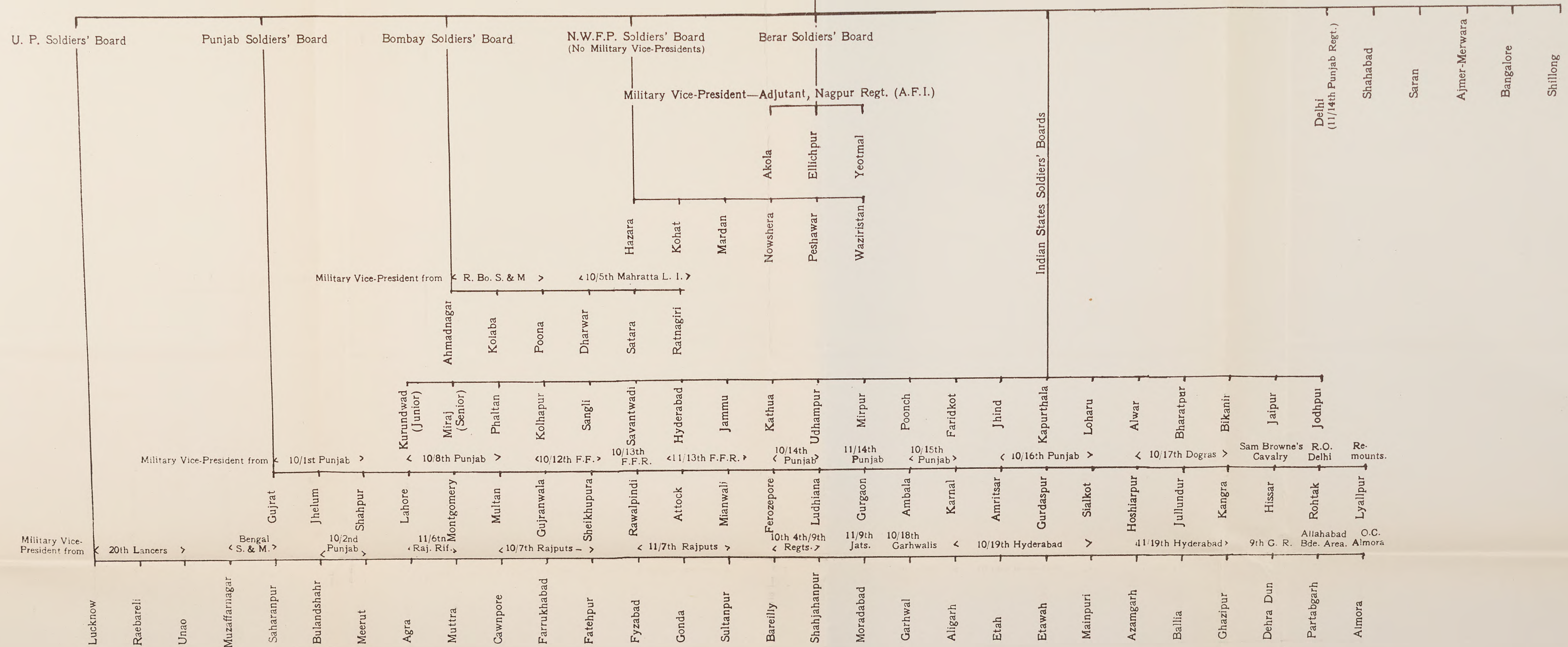
Another, and not the least important, result of this effort is that a new and ever-improving channel of communication has been established between Army Headquarters and the ex-soldier—a channel which facilitates the collection of information from the recruiting areas and the issue of information to them. The channel is one that may yet prove of immense value in war, both for recruiting, propaganda and intelligence.

An attempt has been made in this article to show how an organization, designed primarily for the clearing up of problems connected with the end of a war and the demobilization of an army, has been adapted to meet the peace-time needs of the Indian Army. It would be out of place to discuss here the responsibility for looking after the welfare of the ex-soldier and his family or for safeguarding the civil rights of the serving soldier, but it is no overstatement to say that in a country like India a discontented ex-soldiery is a danger of the first magnitude and that the Indian Soldiers' Board is the only organization designed to combat such a danger. As such it is possibly as cheap a form of insurance as is to be found anywhere in the world—but it is more than that. It is a reasonably efficient and flexible machine with contacts in every district which contains more than a handful of ex-soldiers. The potential value of such a machine to the civil authorities in time of trouble can hardly be exaggerated. It is, however, as yet almost unrecognised, except in those

ORGANIZATION OF THE INDIAN SOLDIERS' BOARD—1937 (Showing Units from which Military Vice-Presidents are found)

DEFENCE DEPARTMENT, GOVERNMENT OF INDIA

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districts with a large and occasionally turbulent military population.

The child is now eighteen years old, and a promising youngster that may yet prove of as great value to the country as it has to the classes for whose benefit it was brought into being. It is, however, still a youngster, and requires the assistance and sympathy of the authorities.

LOOKING GLASS REFLECTIONS

BY LAZARUS

First of all that there should be no doubt as to my identity and that the wrong people should not get the blame for the provocative way in which this article is written, I will describe myself.

I am an elderly captain, company commander, of Indian infantry, 5 feet $8\frac{1}{2}$ inches in height and of what I consider good physique, but others tell me that I have, prematurely, the "field officer's figure." I am uneducated in the narrow military sense, but that does not prevent occasional glimmerings of intelligence brightening my otherwise dull and stolid brain. Whether this article was written during one of these bright periods or not, I have, as yet, been unable to make up my mind.

Needless to say, with my manly figure, I am married, but I am one of those courageous few who firmly keep the wife out of the study. Unfortunately she is ambitious for me and has fixed up a mirror over my desk; she tells me that this is to enable her to see whether I am really at work or not. Personally I think she suspects me of flirting with the pretty young governess we have recently engaged. Luckily the mirror is set at a slight angle, so that I am not forced to study my own reflection on the infrequent occasions when I lift my head from my work.

Sometimes when sitting back, seeking an inspiration, I seem to see right through the mirror into another room, very like the one I am in, but somehow different, more practical and more in accordance with modern progress. It gives me the impression of an atmosphere not steeped in tradition for tradition's sake. At times I see the occupants of that room in their every day life. Often that life, like my own, takes on a military aspect.

It was the collective training season. My orderly had reminded me to take my compass, as I had been in trouble with my commanding officer the day before for not having it, so I had gone into the study to look for it. Lal Singh, my orderly, was dressed in his field service order complete with pack; I had on my Mills equipment and, as usual, my haversack was bulging, but my orderly's was worse, as he had his ration tin in it, for we were not due back until the afternoon.

I happened to look into the mirror and I saw two figures, obviously a major and his orderly. What a difference there was between their kits and ours. As I had a few minutes before parade I made a careful comparison between the various kits. Starting with the major and from the feet upwards, he had on marching boots, canvas gaiters and knicker-bockers, not the "plus fours" of the golfer, but the "plus two and a half" of the normal being. I looked at my own nether garments, breeches, putties, boots and spurs. I own that the better riders in my battalion do not wear spurs, but I find it easier to keep on my horse when I do. I could not help thinking how indifferent our forms of leg wear are. Putties are the invention of the devil; they either fall down or restrict circulation and are impossible when riding. The other form of leg gear, the field boot, is worn by the mounted arms and the staff; they are useful for riding and look absolutely beautiful, especially on our brigade major—a gunner—but you should see him trying to walk uphill. In comparison my opposite number's canvas gaiters looked workmanlike and smart and it was obvious that he could both ride and walk in them. His equipment and flannel shirt were like mine and I was glad to see that his haversack was just as bulgy.

The two orderlies wore similar articles of clothing, the changes being in equipment and head gear. The difference in equipment was staggering, while Lal Singh had hanging from his belt a haversack, water bottle and bayonet, the other only had a bayonet. On his back my orderly had a nicely squared pack (my commanding officer is like that) while his opposite number had a rucksack-like bag. While I was watching he took out its contents which were—a water bottle, flat ration tin with tight-fitting lid (how different from our clumsy pattern), jersey, socks, towel, laces and soap. His pouches were smaller than Lal Singh's and I estimated would carry 50 rounds. Here was a workmanlike kit and it appeared that the men of the "Looking Glass" army would be more agile across country than ours. The major's orderly had on a hat like the Gurkhas wear, only I noticed that the crown was thick and the brim thin and that it had two hooks so that it could be caught up on each side, after the method employed by the South Africans when fighting in German South West. (Denys Rietz in his book "Trekking On" mentions how useful this was for concealment purposes.)

However, it was time for parade and as we went out, LaI Singh put his hand to his forehead to shade his eyes from the sun.

I had just been out with my company doing an attack. I had worked out a great scheme to bring in the use of the Lewis guns by the forward platoon commanders. The company umpires had done their bit and the platoon commanders had made their little plans, with the result that the Lewis gun on the right had wiped out the reserve rifle section of the left platoon. This did not seem quite right and it happened that had I, as company commander, had any means of producing a fair volume of fire, I could have put in a reserve platoon—a force big enough to effect something—and won a pretty victory. Another point that struck me was that the effect that can be produced by one rifle section in one place and one in another is practically negligible and seems a waste of effort. I made a note to look up the principles of war.

When I got back to my study and had jotted down what I thought was the principle of war—"economy of force"—I looked it up in the book and found that it was now only a corollary to another principle—"concentration of effort." I was starting to ponder over this when I found myself glancing at a "Looking Glass" manual called "Platoon Leading." I liked the fact that the man in charge was called a "Platoon Leader" and not a "Platoon Commander" as with us. The distinction is subtle, but marked. My opposite number had obviously been exercising his mind over the problem of light machine-guns as a company or a platoon weapon and had made notes to this effect:

The area for manœuvre by a platoon is small and it will usually not be possible to co-ordinate any movements with platoons on the right and left when held up by enemy fire at close range.

The company commander has a larger area in which to manœuvre, but has no means of producing adequate covering fire. If he details a platoon to provide this, it has only one light machine-gun plus the rifles, if they can be used, to produce the necessary effect.

The time has come to consider a possible reorganization of the company into—

Company Headquarters.

One light machine-gun platoon.

Three rifle platoons.

The advantages of this are—

The officer with the largest area in which to manœuvre has the power of combining fire and movement.

The more highly trained officer has the means of making a combined fire and movement plan.

There will be co-ordinated effort by the light machine-guns instead of haphazard fire.

When the leading platoons are held up, the effect of a body of forty men advancing under heavy covering fire is far more likely to achieve success than a body of ten men under weak covering fire.

The disadvantages are—

There will be occasions when rifle platoons will require a light machine-gun from the start.

In defence there is bound to be a certain amount of dispersion of the light machine-guns to cover the company frontage.

Both these disadvantages can be overcome by placing light machine-gun sections temporarily under command of rifle platoon commanders.

The parrot cry that the "light machine-gun is the platoon commander's weapon," whatever that may mean, will have to be broken down.

The advantages of having a light machine-gun platoon in a company well outweigh the disadvantages and the introduction of such an organization will increase minor tactical ability in the field.

I came to with a start as Field Service Regulations fell to the ground and as I picked it up I wondered which were the more important—the principles of war or the principles of organization.

It was about three o'clock on a Thursday afternoon late in March and I was sitting at my desk doing one of my annual tasks. On the left side of the table was a large collection of books of all sizes, on the right-hand side was a smaller heap and between them, in the centre, a pile of pamphlets, a pair of scissors and a paste pot. The floor was scattered with small bits of paper of different sizes and shapes. The annual inspection was getting near. For some days I had been at this pastime and I had

just pasted in the sixth amendment to a sentence; this had, by the substitution of an "and" for an "or" in the fifth amendment, reintroduced the original wording of the regulation as it had first been published two years before.

Reaching for a fresh amendment I happened to look up and saw in the "Looking Glass" room a desk similar to mine, but with very few books on it. I tried hard to read the titles of the smaller books, but could not. On the cover of one of the larger books I saw a white label which appeared to read—

1 PUNJAB RIFLES LENDING LIBRARY.

I was trying to understand what this meant when suddenly I found myself in the "Looking Glass" room and I read the label—

1 PUNJAB RIFLES LENDING LIBRARY.

As I read the title I knew in a flash the system on which the "Looking Glass" army based their issue of books. As far as I can remember, and I wrote it down shortly afterwards, it was on these lines:

It is wrong to issue books broadcast without considering what happens to them at the other end of the scale. Following the books comes a spate of amendments which, if the books are to be of any use, must be entered in their correct places. If officers and clerks are thoroughly conscientious in this respect there is a lot of duplication and many hours have to be spent with the paste pot and scissors.

Books divide themselves into four categories—

Those which have a general interest.

Those which have a particular reference only.

Those which must be kept up in a number of small offices.

Those which the individual officer must keep up.

From the point of view of the greatest reader of these books—the officer—they can be divided into two classes—

Those which he reads continually and places on his bedside table for study when he wakes up in the night.

Those which he requires when the bugbear of examinations raises its head.

He and his wife are reluctantly prepared to keep the former category amended, but he is not prepared to do the same for the latter in which he only has a passing interest.

The matter is further complicated by the books themselves being classified as—

Those which can only be read behind bars with an armed guard outside.

Those which should not leave a room without a receipt and should be locked up over the week-end or when a superior officer is expected.

Those which can be left lying about in "taxis."

The "Looking Glass" army gets over these difficulties by forming two unit libraries for the books that the individual officer need not always be studying.

A reference library the books of which can only be consulted in a particular place.

A lending library, specially for officers studying for examinations.

The keeping up to date of the books in these libraries is the definite responsibility of a clerk detailed by the commanding officer.

The original issuer of the books has to consider more headings than these, but the formation of these libraries keeps down the number of books required. Headings under which the issue of books are considered in the "Looking Glass" army are—

Headquarters office.

Sub-unit offices.

Mobilization boxes.

Court Martial box.

Unit school.

Individuals.

Reference library.

Lending library.

Each category, secret, confidential and security, are considered under these headings as well as the ordinary kind of book. I came to the conclusion that there were certain big advantages in this system. For instance it appears that there is—

A financial gain in that fewer books are required.

A sufficiency of thoroughly up-to-date books.

A saving of time to officers and clerks in having fewer amendments to enter up and in knowing where to find the latest copy of a regulation not frequently consulted.

As I was pondering over these matters I heard a voice from the next room say, "Tea is ready, darling," and I found myself at my own desk again. As I got up a dust devil came in through one window and out through the other, taking with it most of the amendments. I watched some of them up to 300 feet in the air.

I am going up for my promotion examination and have been struggling to digest the repair organization behind mechanised units.

As far as I can make out there are two repair organizations both dealing with mechanical engineering, yet each overlapping the other. One organization deals with all vehicles, fighting and non-fighting, while the other deals with actual weapons and instruments. I have also gathered, perhaps erroneously, that certain machines are common to all workshops and that the concentration of machinery in one place is convenient and economical. With armoured fighting vehicles it is difficult to separate the weapon from the vehicle which is in many cases, of itself, part of the weapon. When I asked a certain senior officer for enlightenment on this, he replied that it was easy and that a chalk line was drawn on a tank and below the line was dealt with by one organization and above it by the other.

I tried to think out what happened to a tank after it had been hit by a shell which damaged both the engine and the gun. The first thing that occurred was that it was dragged out of action and carried to the people who repair engines and tracks. There, if my garage is any criterion, it was taken to pieces and after various bits had been overlooked the first time it was assembled, it was put together again. Eventually, after a great many forms had been made out in quadruplicate, it left the workshop under its own steam and went to the place where the gun was dealt with. Here everything above the chalk line was taken to pieces, repairs effected and many more forms filled in. Probably it then went back to the first workshop to see if any bits of the gun had been left lying about in the engine. After that it was ready for reissue to the unit. All this meant that the machine was, in two separate places and at two different times, completely out of action. The waste of time can easily be imagined and to this must be added the expense of keeping duplicate machines and often duplicate power units. The whole thing is ludicrous.

I again consulted my good natured senior and explained my thoughts to him and he told me that I was probably correct, but that I had missed the point. That was that our army is not an army at all, but is like one of those exotic cocktails in which the colours remain in layers and do not mix. Only in our case it is "cap badges" and not colours. He explained to me the antiquity and the iniquity of cap badges which resulted in a man wearing a "one-ended spanner," as his badge could only work a machine in the organization of "one-ended spannerers," and that the wearer of a "two-ended spanner" badge was in a similar case. He said that he could show me some workshops, a few miles apart in one cantonment, where, in one place a man with a "one-ended spanner" badge could not keep pace with the work on his machine, and in the other a "two-ended spanner" man sat idle at an exactly similar machine. However, he told me not to give up hope, as, anyhow, we had managed to get the "horse-shoe" badge men into motors.

As I was sitting in my study trying to get this complicated system into my head, I found myself at the desk in the "Looking Glass" room, reading some notes made by my opposite number who was obviously studying for his examination. The notes were very long and I could only remember bits of them when I came to jot them down.

First of all there was what he called the "prehistoric" (the word is his, not mine) system which was too like ours for my liking. Then he had a paragraph of eulogy on a certain Secretary of State who had made great changes. A bit I remember exactly went like this:

"Mr. Pittpole first of all abolished the difference between the combatant and the non-combatant, as he realised that, when nations go to war, the women who produce the fighting men or fill the shells are helping their country just as much as the soldiers with their arms. In place of the old distinction he made a new one which was based on training only; he divided the nation into those trained in arms and those not so trained. He was emphatic that it was the duty of the former to provide adequate security for the latter, just as it was the duty of the latter to ensure that the former had the wherewithal to keep themselves and their arms in being."

The essentials of maintenance in the "Looking Glass" army appeared to be four—

Manufacture.

Repair.

Stock and issue.

Carrying.

Of these only the last three were likely to be in the theatre of operations and were represented at General Headquarters by high-officials. The "Looking Glass" army appeared at heart to be very conservative, as the titles chosen for these generals were—

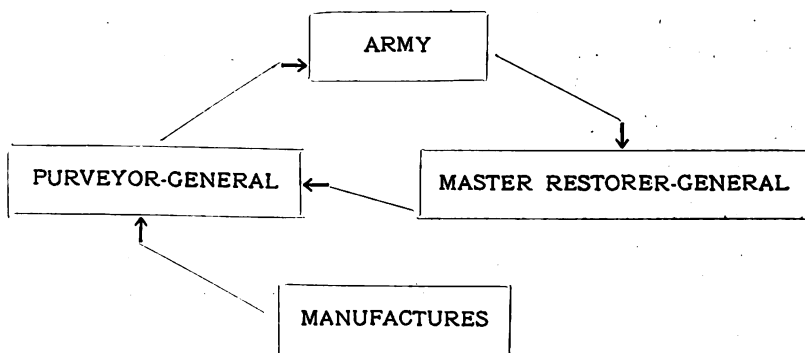
Master Restorer-General.

Purveyor-General.

Transporter-General.

They had branches under them for dealing with the various services and departments, but each general dealt with everything within his own sphere. The Purveyor-General, for instance, supplied the army with food, weapons, vehicles, stores of all kinds, including technical stores, animals and ammunition.

The system could be reduced to a simple diagram thus—



I gathered that the introduction of the scheme had, by no means, been easy and that a tremendous opposition had been put up by elderly wearers of cap badges and several had gone so far as to put up the resignation barrage, but when these resignations were accepted and no reconsideration allowed, opposition stopped. I understand that the "Looking Glass" army considered their system to be simple, quick and economical in the field.

Having thus far achieved success, Mr. Pittpole went still further, as he realised that those trained in arms were not an army, but a collection of arms, branches and units, all of which put *esprit de corps* before *esprit d'armée*. The result of this was that

vested interests in certain respects pulled against each other to the detriment of the efficiency of the whole. This was uneconomical and meant that the full power of the army could not be exerted. This was not the case in the other Services which called themselves the "Looking Glass Sealservice" and the "Looking Glass Birdservice." Mr. Pittpole realised that it was not possible at that moment to make a "Looking Glass Landservice" as visualised by Mr. Kipling in his "Army of a Dream," but he considered that a lot could be done to minimize the dangers of non-co-operation. The differences were largely accentuated by distinctions in dress and badge and also by the fact that there were two cadet colleges.

Mr. Pittpole laid it down as an axiom that the army was more important than the individuals who go to make it up, and made the following decisions for troops trained in the use of arms:

General lists for officers of cavalry, artillery, engineers, signals, infantry and tankery.

One cadet college where cadets were taught the rudiments of the work of all arms. During the last period of his training the cadet was allowed, but not guaranteed, choice for a particular arm.

Between seven and ten years service there was attendance at a junior officers' school where the tactics of all arms were again considered.

Between twenty and twenty-three years service attendance at a senior officers' school was compulsory.

After command of a unit, officers selected for the higher appointments were on a general list. Any officer could be posted to any command, for instance, a late cavalry officer could be and was selected to go to an artillery command and equally a late infantry officer was posted to a cavalry brigade.

I came to with a start as my orderly came in with a letter from the adjutant stating that there would be a meeting in the commanding officer's office to discuss the proposal from the first battalion that the regimental badge should be changed from an African to an Indian elephant.

I had been promoted major at the beginning of the hot weather and, after sending my family to the hills, was ready to go to mess for the first time as a field officer. I was very proud of my jingling spurs and was looking forward to being called "sir" and treated with the respect due to my new rank. Incidentally I felt

quite relieved in that I need no longer call Jones, who had been promoted a few months before, "major." As there was half an hour to spare I went into my study to read in a comfortable chair. After going through a chapter of Field Service Regulations I happened to glance into the looking glass and saw my opposite number also dressed for mess. His appearance horrified me. He had no spurs, I have already told you that he was a field officer, and was wearing white trousers and Wellington boots. He had a bright silk "kummerband," a silk shirt with a soft collar and a coat just like mine except that it had no badges of rank. It looked thoroughly cool and comfortable and the wearer could sit down in any chair without disaster. It was very like the kit my commanding officer wears in his own bungalow, but I thought of his face had anyone dared to turn up in mess like that.

The "Looking Glass" major beckoned to me and I accompanied him to his mess which was very like ours on the outside. On the way in I noticed that, whereas we have a large and expensive band, his mess had a compact-looking string orchestra which must have cost a great deal less than ours. Inside the mess there was a different atmosphere, more homelike to my mind. No one got up and said, "Good evening, sir" when we entered, as would have happened in our mess, but, at the same time, everyone was very friendly and passed the time of day with my host. I must have been invisible, for they would have naturally got up had I been a guest. The "Looking Glass" major explained to me that Mr. Pittpole had been appalled by the ultra-military way officers lived when off duty and he had succeeded in cutting down "seniority-itis" off parade. He had divided officers into three social seniorities; group one was majors and below, group two colonels and brigadiers and group three general officers. All members of the same group were equal when off parade, the only exception being that a formation commander was called "sir" by those actually serving in that formation; that is a commanding officer called his own brigadier "sir," but not the brigadier of a neighbouring formation. Mr. Pittpole had also laid down that the mess was the bachelor officers' home and that they should be as nearly comfortable as was possible in it, as the married officer was in his home. Amid the cheers of the junior officers he had publicly burnt with his own hand that paragraph in regulations which stated that mess was a parade.

As I was leaving I thought that I heard girlish laughter within the sacred precinct and my friend explained that they had a ladies' room where officers could return hospitality adequately yet cheaply. It had made a great difference to the pockets of the subalterns who were able to take their "fairies" out to dinner and the "movies" without being ruined, as they would have been had they patronized the local hotel. I gathered that this room was most popular.

I woke up with a start, got up to look at the clock and discovered that I had only five minutes in which to get to the mess. I hastily bent down to pick up my pipe with the usual result that both back trouser buttons were torn away. I dashed to the door to call my bearer, tripped over my spurs and fell full length on the floor.

Although you may not think it, there are brains in our family and I recently wrote to my brother who is on the staff about some business in which we are both concerned. His answer was unintelligible to me and ran as follows:

"Unfortunately, *inter alia*, I shall be away with *dadph* from *excl* 7 Apr to *incl* 12 Apr and am *not likely to be able to* give you a complete answer now, but I agree, *mutatis mutandis*, with your proposals. Later *ad hoc* arrangements for the *implementation* of our decision *will issue*."

After studying this for some time I put it on my table and the looking glass with a loud report fragmentated.

THE MACHINERY OF MOBILIZATION *

BY LT.-COLONEL A. V. ANDERSON, M.B.E., R.E.

The basis of all mobilization preparations rests primarily upon the orders and instructions laid down in Mobilization Regulations and upon the mobilization schemes prepared in accordance with these regulations by units, formations and individuals. If these schemes are complete the order to mobilize should see the peace-time Army and the units which compose it rapidly and automatically transforming themselves from their peace condition of comparative unreadiness into a condition in which they can move and fight, or carry out such other role as is required of them, at a moment's notice. The process may be a complex one and may involve many detailed arrangements necessitating foresight and thoroughness, but once these arrangements have been made the subsequent procedure should be simple and the units concerned should be able to pass without difficulty from a peace to a war footing. If this were all that were required no major problems would arise but this process of mobilization, defined in its narrowest sense, is only the first stage towards making an army ready for war.

The object of Mobilization Regulations and schemes is to ensure that, so far as can be foreseen, every detail connected with the change from a peace to a war footing has been thought out in peace, and within the limits of that object these regulations and schemes should be as elaborate, as definite and as uncompromising as careful preparation in peace can make them. Their object is, however, definitely limited and they are not, and should not be, concerned with any other process once that object has been attained. When they have ensured that the army, as it exists in peace and as it is located in peace, can pass rapidly to a war footing their functions have ended and their usefulness is over.

It is well known that the army in peace does not include many administrative and ancillary units which are required in war and that even for a minor campaign many units of various types must be raised specially for the occasion. The necessity for economy and for making the best use in peace of the money

*See "The Principles of Mobilization" in the July number of the U.S.I. Journal.

available makes it certain that this will always be the case to some extent at least, and as things stand to-day we find that the reaction from the war of 1914—1918, combined with the effect of economic depression, has resulted in the army's administrative establishments being cut to the bare minimum required for its peace maintenance. This minimum will always be insufficient in quantity and quality for the greater demands of war and arrangements must be made to meet these demands in full with the alternative of risking an administrative breakdown such as occurred in the Crimea or in Mesopotamia in 1916. These arrangements find no place in Mobilization Regulations and must be provided for elsewhere.

A further consideration is that the army, even when completed with its additional administrative machinery, is seldom ideally located in peace to carry out any particular plan of campaign. The multiplicity of tasks which the army may be called upon to perform is sufficient to ensure this and, in India particularly, the necessity for providing training facilities and for ensuring for the troops in peace a reasonable share of the amenities of life makes it doubly certain. To the process of mobilization, therefore, must be added the further process of concentrating the army in the area or areas from which it will be in a position to carry out the first steps in the plan of campaign. This process of concentration is in itself a complicated and intricate one requiring the most detailed arrangements, and these arrangements must be prepared beforehand and laid down somewhere.

Even when all this has been done another requirement still remains to be satisfied, as an army in the field has to be maintained in personnel, animals, clothing, equipment and supplies from the moment the first troops arrive in the concentration area. The machinery of supply has already been allowed for, but the machine will not work until power is applied to it and supplies cannot be delivered to the consumers until bases, depots and other holding establishments have been stocked and until the flow of supplies from rear to front has been established. This is not a process which will happen automatically unless all the necessary preparations have been made and until the necessary orders have been issued. These preparations and orders must be completed in peace and a place must be found for them so that they can rapidly be brought into force in war.

These additional requirements are met by the preparation in peace of a detailed plan or plans designed to satisfy the conditions arising from a specific campaign or campaigns, as visualized from a careful appreciation of the many factors involved. In certain cases the role of the army may be clear-cut and it may be possible to forecast its task so accurately that preparations can be confined to the production of one plan which will enable the army to carry out that role; in other cases several possible contingencies may have to be allowed for in which event alternative plans may have to be prepared; in all cases minor or subsidiary tasks will require consideration, the plans for which should fit as far as possible into the framework of the main plan. As these plans are prepared in peace and at leisure, time is available for their elaboration in great detail and, as the assumptions on which they are based may any day become a reality, there is every justification for elaboration and for making as complete and as thorough preparations as possible. The production of appreciations and of plans of this nature will always be a fundamental part of the duties of the higher command and of the staff of the army in peace and, if the army is to be prepared to meet the conditions of the next war rather than those of the last, these appreciations and plans must to a large extent form the basis upon which the policy governing organization, training and equipment is built. So much must be admitted, but at the same time it should be pointed out that if these plans are allowed undue influence or if too much belief is attached to their infallibility the results may be unfortunate.

It is a commonplace that no war has ever taken the exact form which has previously been envisaged in peace and it has seldom been found possible to implement in its entirety a plan of campaign prepared before the commencement of operations. The Great War had been foreseen by all the nations involved, the object of each of the contending armies was clear at least to its own commanders, plans had been prepared to meet a comparatively simple issue upon as firm a basis as can ever normally be possible and yet in no single instance did the first moves go strictly as they were expected. The French plan had to be dropped at a very early date and an entirely fresh one substituted; the German plan was subjected to major alterations; even the arrangements for concentrating the British Expeditionary

Force in France were changed and instead of six divisions, four only proceeded overseas with the first contingent. The real value of the plans which had been prepared in such detail was to set the machine in motion and thereafter to form the means by which rapid improvisation could be carried out. This, it is believed, will always prove to be the true value of such plans, their basis is only forecast and war is too much a matter of the unforeseen, of surprise and of uncertainty to make it possible for plans worked out upon peace forecasts to prove workable in every detail.

Unfortunately there will always be a tendency to invest these plans with a greater sanctity than they merit and to invest their details with the same authority as the premises upon which they are founded and which have been officially accepted as ruling factors in determining the policy governing the organization, training and equipment of the army for war. The plan is so complete, every detail appears to have been provided for, every part dovetails so exactly into every other part that it is difficult to visualize the basis of the plan being correct and the edifice built upon that basis with so much effort and so much trouble being unsuitable. This, however, may well prove the case and, if it is then found that our organization and our administrative preparations have been allowed to become too rigid and too specialized, it may be impossible to adapt the plan to meet the unexpected or to modify dispositions in time to deal with an unforeseen danger. These plans will always be a necessary part of our preparations for war but unless we continually remind ourselves of their real functions and of their limitations they will narrow our vision and end by defeating the object for which they were intended.

The ideal plan should include arrangements for placing upon a war footing the maximum fighting force which can be made available, complete with all ancillary units required for a major campaign; it should if possible allow for the production of this maximum force in stages which can be implemented either in sequence or simultaneously; it should include detailed arrangements for concentrating this force in the area or areas where its employment is considered most likely and for its initial maintenance in men, animals and material. It should not, however, prejudice in any way the power of the higher command to effect

major alterations at short notice nor should it rule out of consideration the possibility of an entirely different plan being forced upon the commander by the action of the enemy or by the development of an unforeseen situation.

For many reasons it may on occasion be desirable to place the army or only a portion of it on a war footing without taking the serious step of ordering mobilization. This can be effected by the issue whenever necessary of specific *ad hoc* orders detailing the force and ordering specifically the various steps to be taken to enable it to make itself mobile and fit to carry out the role which is expected of it. The chief objection to this method of issuing specific orders on each occasion is that they take time to prepare and still further time to issue and in cases of urgency it may be necessary for the troops to move before detailed orders can reach them. Another disadvantage is that there will always tend to be a lack of continuity in such orders and even when they are received by the troops there will often be changes in detail and these details will tend to obscure the principles upon which the orders are based. It is desirable therefore that the means should exist whereby effect can be rapidly given to what may be called the basic processes of mobilization without going to the extent of invoking the full implications involved by the order to mobilize. This result can be ensured by the issue in peace of "special procedure" regulations or "standing orders" which cover these basic processes and which can be adopted at short notice by troops called upon to operate under conditions when mobilization for one reason or another is considered undesirable. These regulations should include orders as to the organization and establishments to be adopted, procedure as regards depots, reinforcements and individuals' records, the system of pay accounting to be adopted, arrangements for completing the unit in its war outfit and for maintaining it in supplies, clothing and equipment, and the disposal of surplus peace holdings and families. These orders should not be designed to meet any particular case but should be of general application and should include, as far as possible, every separate process which is gone through when a unit passes from a peace to a war footing. In the final result the regulations as a whole may not be found to be entirely appropriate to a particular situation which may arise but this difficulty

can be overcome by making their application permissive rather than obligatory, in part or in whole.

These special regulations or "standing orders" can with advantage go somewhat further and authorise in advance certain measures, such as the war scales of disability pensions, which would otherwise have to be authorised with retrospective effect after much delay and much correspondence. This extension of the scope of these regulations must, however, be undertaken with extreme caution as the temptation to cater for peculiar administrative requirements of a particular situation will, if yielded to, only result in rigidity and in the inability of the regulations to deal with the actual situation which will eventually arise. Any provisions of this nature which are of purely local importance should be included in the specific plan of operations which must, or should, exist to deal with the situation envisaged.

To sum up, Mobilization Regulations and mobilization schemes should contain in great detail all arrangements to enable the army as it exists in peace to pass from a peace to a war footing but should not be concerned with any subsequent procedure. Specific plans should exist which should cover all further arrangements required to meet any particular situation which may be considered possible but these plans should not be too rigid nor should they be allowed to have undue influence upon the organization, equipment or peace location of the army. Finally the army should possess the means of placing itself upon a war footing or of producing a small force upon a war footing without having to resort to mobilization and, as Mobilization Regulations should be kept free from the influence of any particular plan of operations, so should these subsidiary regulations be of as general an application as possible. These requirements may constitute the ideal to be aimed at, but the closer we can manage to approach them, the more complete our mobilization machinery will be.

ORGANISED CHEMICAL INDUSTRY*

ITS RELATION TO THE OUTLOOK IN EUROPE

By Herbert Levinstein, Ph.D., F.I.C.

A nation does not make war merely with the bodies of her armed soldiers directed by the High Command and General Staff, but with the whole of her resources, which include the industries, the discipline, and the will to win of the civilian population. The most careful plans for mobilising military forces have been for generations past docketed at the headquarters of the General Staff of the Great Powers. Industrial mobilisation, or the provision of complete plans for industrial mobilisation, is comparatively new and is a result of the above doctrine learnt during the Great War at bitter cost.

That war involving the principal Powers of Europe may come at any moment is clear. I do not say that war on a European scale is necessarily imminent, but I do say that the possibility is always there. When it does come it will be sudden and overwhelming. It is not, therefore, surprising that England is attempting to rearm. Our foreign policy is, and must remain, a policy of peace, but lack of power to make such policy effective may well be more dangerous to world peace than any other single factor in Europe.

Industries quite unprepared for war cannot suddenly be switched on to the requirements of war without great delay and immense cost. If planned in peace time and spread over a number of years, rearmament goes forward methodically and comparatively quickly in a totalitarian state. Here in England, where rearmament at present has to be accomplished without dislocating the life of the people or the industries by which they live, the difficulties are much greater.

Sir Thomas Inskip, the co-ordinating Minister, tells us that the plan for providing an adequate air force and for the requirements of an army, not yet mechanised or provided in adequate quantity with modern weapons, is meeting with success. In so far as the mechanical equipment for the fighting services is being

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obtained from firms outside the armaments group, many obstacles are, I have no doubt, being encountered. Such outside firms differ greatly in character, and have but little centralised organisation. We in the chemical industry went through these difficulties in an acute form during the last war owing to the many independent chemical firms without any central control. We may be thankful, for it is of great national importance that the chemical industry is to-day more closely knit.

The chemical industry is now, in my opinion, the most up-to-date and best organised industry in this country. The contrast with 1914 is indeed astonishing.

THE POSITION IN 1914

In 1914 the idea of war seemed bizarre to the commercial classes of this country. This was not the case in Germany, where thoughts of war were never far away and talk of war frequent, if one visited one's competitors in the chemical world in that country.

Picric acid (lyddite) was the high explosive of the army. Small quantities of T.N.T. had indeed been purchased by the War Office, but from abroad. I should hesitate to say that the Navy had any high explosives at all; at any rate, torpedo heads and mines were filled with gun-cotton. Naval and military uniforms were dyed with German dyes. It is a little known fact that, owing to the forethought of our industry and the quick measures spontaneously taken, the woollen manufacturers were never held up by a shortage of khaki dyes. If they had been, Kitchener's Army would have come into the field months later.

At the outbreak of war the main responsibility for the supply of high explosives to the army lay with the Director of Artillery at the War Office. Two branches were concerned: A-6 for high explosives and A-7 for propellants. The quantity of picric acid that could be manufactured was small and the method wasteful. When T.N.T. was adopted by us as a high explosive during the war, following the German example, there was practically no established manufacture in this country.

DIFFICULTIES OF THE MOULTON COMMITTEE

A Committee to investigate the subject was formed, and held its first meeting on November 16th, 1914—after we had been at war for three and a half months. Of this Committee, Lord Moulton, the famous patent lawyer, was the chairman, the other

members being: Mr. (now Sir Percy) Ashley, Board of Trade; Dr. Chas. Carpenter, Governor of the South Metropolitan Gas Company; Major A. Cooper-Key, H. M. Chief Inspector of Explosives, Home Office; Mr. U. F. Wintour, Director of Army Contracts; Dr. W. R. Hodgkinson; Mr. W. Macnab; Mr. P. H. Hanson (Deputy for Mr. Wintour); Sir R. Southern Holland; with Mr. R. R. Linfield as Secretary.

The composition of this Committee indicates clearly the difficulty the Government had in 1914 in approaching the chemical industry. At the beginning, members of the Committee had to go round the country with a trade directory—Lord Moulton himself was most energetic in this respect—interviewing manufacturers to undertake the manufacture of high explosives.

When Lord Moulton came to Manchester, amongst others he saw me, and asked me if I would turn over the nitrating plant at Blackley to the manufacture of T.N.T. I told him that this plant supplied the requirements of our dye-stuff works, which seemed to me to be of crucial importance at the time. The amount of T.N.T. that it could make was comparatively small, and the change-over would close down the dye-stuff plant. The situation, close to a dense population, rendered the location undesirable for an explosives' works. If he wished us to put down a T.N.T. plant, we would do so, but with great respect, not at Blackley. I do not think that Lord Moulton appreciated at the time, or even later, this common-sense view. But all through the war similar rivalry between departments existed.

At that time the requirements of high explosives were estimated to be approximately 1,400 tons per month. It was found that there were a few firms, mostly small firms, able to manufacture picric acid. In January, 1915, after five months of war, five firms were so engaged with a total monthly output of approximately 130 tons; T.N.T. was being made by two firms, with a monthly production of 35 tons.

To show how amateurish at that time was the direction, I might say that Lord Moulton was of opinion that there would be plenty of fuming sulphuric acid available for both his programme and for others. He persuaded me not to put down the fuming-acid plant required to serve the large intermediates department of the new dye-stuff industry. Needless to say, the supply of this promised acid was not available when it was wanted.

In December 1914, the Committee recommended that the Government should take possession of all the picric acid in the country. By June 1915, the responsibility for providing all explosives to the army was transferred from the War Office to the Department of Explosives Supply (D.E.S., Ministry of Munitions).

HELP FROM THE DU PONT COMPANY

At this point, I would like to remind you of the valuable service rendered to the Allied cause by the Du Pont Company of America. Their great organisation threw itself wholeheartedly into the manufacture of the propellants and high explosives required by the Allies, and especially by France. As time went on, the position changed and we were able not only to meet our own requirements but also to help our Allies.

We were able to buy from abroad, in the course of the war, the following quantities, which at the time were of vital importance, as they helped to bridge the gap: propellant—nitro-cellulose powder, 220,239 tons; nitro-glycerine powder, 54,855 tons; High Explosive—tri-nitro-toluol, 31,600 tons; picric acid, 1,383 tons; ammonium nitrate, 18,300 tons.

All methods for making picric acid involved the use of benzene; all but one, the use of phenol. The phenol obtained from coal tar proved in this country, as also in Germany, insufficient, and plants for the synthetic product were erected by various concerns under the direct auspices of the department. Five private firms and three Government factories (one of which never came into real production) were engaged in making synthetic phenol. No less than ninety-eight firms were contractors for supplying benzole, toluole and carbolic acid crystals. By November 1916 there were seventeen makers of picric acid in this country, and the production was 449 tons per week or 1,800 tons per month. The total production of picric acid in the country during the war was approximately 71,000 tons, an average of 1,400 tons per month, which was the estimated requirement for all explosives in 1915.

HOW THE T.N.T. DEMAND WAS MET

At first the toluene required for T.N.T. was contained in benzole obtained from coke ovens, gas-works and tar distillers. The output of benzole in 1913 was 18 million gallons from coke-ovens and 5 million gallons from gas-works. The extraction of

toluene was a problem, as few distillers had suitable fractionating plants.

Very considerable difficulties were experienced in obtaining delivery of T.N.T. from entirely inexperienced people with whom in certain cases contracts were placed. In due course, as the department grew and their own plants came into operation, some of these works were taken over and administered by the Government. The location of some of these plants was such as to startle any chemical engineer conversant with the manufacture of explosives.

The Munitions (Liability for Explosions) Act of 1916 was passed to relieve contractors from liability in respect of loss and damage from explosion. The risks run by the workers, the property owners and inhabitants of the neighbouring crowded areas, in which many of these factories were situated, was having a prejudicial effect on the prices required by contractors.

Altogether sixteen private firms were employed in making T.N.T., as well as twelve Government factories. In November 1916, a weekly output of 1,080 tons of T.N.T. was produced from seventeen sources—that is, more than three times the estimated total requirements of high explosives originally made. The total production of T.N.T. in this country during the war was 172,647 tons, an average of 3,385 tons per month.

The amount of toluene obtained from gas-works and coke-ovens would have been quite inadequate for the manufacture of the above quantities of T.N.T. Here the Dutch came to our assistance. A fraction of Borneo petroleum contained about 55 per cent. to 60 per cent. of toluene which could not be separated by fractional distillation. On nitration to the mononitro body only the toluene in the fraction reacted. The mononitro toluene could be separated from the unreactive paraffins very simply. This Borneo petroleum became indispensable to the completion of the T.N.T. programme.

AMMONIUM NITRATE FOR AMATOL PRODUCTION

The most important high explosive used towards the latter end of the war was neither picric acid nor T.N.T. but amatol, which consists of a mixture of ammonium nitrate and T.N.T., the 80—20 mixture being largely used. The pre-war production of ammonium nitrate in this country was negligible. Calcium nitrate could, however, be imported from Norway, where the Birkeland-

Eyde process was worked on a large scale. In this important work the great firm of Brunner Mond played the leading part, but the Ammonia Soda Company also did good work and was an early supplier.

The first contracts for ammonium nitrate gave a weekly output of about 150 tons. With increased plant and the erection of new factories, the weekly output reached the imposing figure of over 3,000 tons. The total production in this country during the war of ammonium nitrate was 322,181 tons, much more than the combined output of picric acid and T.N.T.

We became independent of oleum only in the early part of 1916. The national factories put up Grillo plants, burning exclusively sulphur, not pyrites. To save sulphuric acid it became compulsory to use nitre cake, then a by-product of nitric acid manufacture, wherever possible. The department had no less than 115 different factories, including those of 42 firms, making sulphuric acid. By September 1918, the production of concentrated sulphuric acid and oleum was: sulphuric acid (C. O. V.) 4-5,000 tons per week; oleum, 5-6,000 tons per week.

THE SHORTAGE OF CHEMICAL PLANT

There was little experience here in making chemical plant. Autoclaves, as used in the dye-stuff industry, came exclusively from Germany, as did all acid-resisting enamel-lined pans. Nearly everything had to be specially designed, little standard plant was available; few well-trained chemical engineers could be obtained. In 1916, two hundred and fifty chemists were recalled from the Chemical Corps in France for service at home, so acute was the shortage; and an appeal was even made to the Australian Government, who let us have twenty-two chemists.

The colossal size of some of the large national factories, which were erected towards the close of the war, will scarcely be realised by those who never saw them. Gretna was nine miles long, and 30,000 men were engaged at one time in its construction.

It should not be thought that the machine as it grew to maturity was careless of yields. It carried out a great piece of work in a highly competent manner, of which those associated with it may well be proud. Accountancy and costing, for instance, were carried out stringently. The waste lay in the hurried erection of *ad hoc* plants in war-time with largely unskilled personnel, using processes many of which had no peace-time value. We were

an unprepared, peaceful, individualistic and industrially unorganised people. Thus the war was prolonged almost beyond endurance while we prepared, organised, and then struck.

GERMANY'S FLYING START

Very different was the position in Germany. Some years prior to the war the great dye-stuffs companies formed a combination, and at once, therefore, the German Government had the nucleus of a strongly centralised and organised industry for the chemical side of the production of munitions of war. This centralisation of authority proved to be of the utmost value to Germany.

The way in which plant most suitable to the process required was used was carried to the logical conclusion in that several factories might be concerned in the manufacture of one product. Thus a plant at Ludwigshafen was used before the war for the preparation of ethylene and ethylene chlorhydrin in the early stages of the synthetic indigo production. When mustard gas was being manufactured, this plant was used for the production of thiodiglycol, which was then sent to Leverkusen for conversion into mustard gas. In the same way, several other works combined in the preparation of diphenylarsinic acid in the azo-dye-stuff departments used for the production of diphenyl-chlorarsine.

Standardised plant used in the manufacture of dyes was converted for explosives production with extraordinary rapidity, in fact, one plant at Leverkusen, producing 250 tons per month of T.N.T., was put into operation in six weeks. The military importance of a well-organised dye and fine-chemical industry thus became apparent.

No expense was spared on the new chemical works erected in Germany during the war, the Oppau factory having, it is said, cost nearly £15,000,000. The buildings were of brick and concrete; engine-houses were lined with white tiles, offices and laboratories were most extensive, thoughtfully designed and ornamentally decorated. At the time of the armistice, Germany had the most perfect and up-to-date factories ready to start on civilian production, and there can be no doubt that these fine and elaborate works were definitely designed to ensure that, Germany, after her expected victory, would be able to assure complete control of the world's chemical markets. To show how this was frustrated would take me far beyond the scope of this address.

POST-WAR DEVELOPMENTS IN THE BRITISH INDUSTRY

Since the war there have been several developments of importance in the organisation of chemical industry. The first and the most important was the formation of Imperial Chemical Industries, Ltd., in 1926, with a capital of £65,000,000, an amalgamation of Brunner Mond & Co., and the United Alkali Company with Nobel Industries and the British Dye-stuffs Corporation. With the exception of fine and pharmaceutical chemicals, artificial silk, films and photographic material, Imperial Chemical Industries, Ltd., covers the whole of the chemical industry. The omissions are mostly part of a sound policy. Imperial Chemical Industries, Ltd., does not manufacture finished products where existing firms to whom they supply either the raw materials or intermediate products cover the ground. The formation of Imperial Chemical Industries, Ltd., was made advisable, if not imperative, by the great German and American combines which could only thus be successfully met on level terms, a task brilliantly accomplished.

Another important step which took place in 1916, during the war, was the formation of the Association of British Chemical Manufacturers. As the result of endeavours to bring chemical manufacturers and plant workers together, and of the increasing interest in specialised branches of the industry, other associations, now numbering thirteen, have been formed and become affiliated to the Association. Among these, mention should be made of the British Chemical Plant Manufacturers' Association, founded in 1920.

Another development is the formation of our own Institution. This is a direct outcome of the war. The need for trained chemical engineers in industry became apparent during the war, and the late Professor Hinchley gathered together a band of enthusiasts who, after much effort, saw the Institution soundly established. The Institution is an examining and qualifying body, and can supply, in categories according to their professional experience, the names of a large number of trained chemical engineers whose services in war-time industry would undoubtedly be required, and this is appreciated by the relevant authorities.

LHASA MISSION 1936

EXTRACTS FROM DIARY OF EVENTS.

September 27th, Sunday

As far as possible Sunday is kept as a holiday. Morgan, Chapman, Nepean and Richardson climbed to 17,450 feet overlooking the Drepung monastery. It is a very holy place called Gyenbay Ri. A kind of *via sacra* marked with stones leads along a steep ridge to the summit which is covered with cairns and prayer flags. We were told that the Dalai Lama and every monk must climb the hill on certain occasions. Those who are too old for much effort go up on yaks. Only the yaks belonging to the Dalai Lama are allowed to graze on so sacred a mountain.

October 6th, Tuesday

The Regent, accompanied by two Shapés, one Depon, a Chief Secretary and many minor officials, left this morning for Samye monastery.

The streets were crowded with people taking this rare opportunity of seeing the Regent. Monks, holding coloured hangings and banners on long staffs, lined the route and officials were busily driving cattle and stragglers from the way. A guard-of-honour was waiting three miles from the city.

The Regent rode in a sedan chair of dark gold lacquer carried by bearers in green with red hats; beside him walked officials and a servant carrying the yellow state umbrella. Mounted outriders in tall conical hats with plumes, rode in front; the foremost carrying a sacred picture to ward off evil, the others with banners on lances.

Those officers who were accompanying the Regent rode in his procession and many monks and lay officials and servants made up his retinue.

All other officials of Lhasa were waiting to receive him at the park. Those of the highest rank wore yellow brocade robes embroidered with dragons of blue and gold; minor officials wore less resplendent brocade tunics and skirts of black silk; they had, perched on their heads, curious little white hats like cockle shells. The park was bright with all this finery and with the many shades of red and claret and the gilded hats worn by monk officials and incarnation lamas who were sitting on the grass or walking about

until the arrival of the Regent. On his arrival he walked from his chair, through ranks of bowing officers to a tent which had been prepared for the ceremony and when he had taken his seat the officials prostrated themselves three times before him. Then all came forward in a long stream and offered their scarves. The Regent blessed each according to his rank either with both hands or with one hand or with a tassel on the end of a stick. When all the scarves had been offered the company sat down in precedence on cushions of various heights and tea and rice were handed round. Norbhu and Richardson sat apart from the Tibetan officials, on the right of the Regent. The Chinese (who had arrived with flags flying and with an armed guard) sat opposite in the place of less honour, on the left.

The Regent soon left the tent and was carried in his chair the short distance to the river where two hide coracles tied together and decorated with yellow cloth even to the paddles, were waiting to take him across to where another tent and, presumably, more tea was awaiting him.

October 7th, Wednesday

No engagements. We seem to have come into more quiet times and can each return to his respective occupation. Mr. Gould, Norbhu and Richardson to their files; Chapman to sorting cinema films and flowers and to writing up bird notes; Dagg and Nepean to overhauling wireless and electrical equipment; and Morgan to his hospital where in a dingy Tibetan room (rather like a stable) lighted by an open well in the roof, he removes cataracts, amputates fingers, gives injections and performs the many other mysteries of his profession.

In front of the hospital is an encampment of tents which the patients with more serious illness, bring and inhabit while under treatment.

No engagements and nothing to record.

October 11th, Sunday

Morgan, Nepean, Dagg and Chapman climbed the hill on the other side of the Kyi Chu to collect seeds and take photographs. As this is the nearest hill to Lhasa there is an excellent bird's-eye view of the city, Potala and surrounding monasteries. In the tranquil early morning the whole vale is obscured in a thin mist of smoke drifting from the city. This is not only the result of innumerable dung fires, but each roof has at least one

stone incense burner where fragrant leaves are burnt to propitiate the gods. As we prepared to cross the Kyi Chu in coracles we saw herds of ponies brought down to the riverside to drink. At this time of the year, when the floods have subsided, and while there is still abundant pasture, herds of ponies and mules are brought down from Mongolia to Lhasa where they command a surprisingly high price—the average figure is about 200 rupees, while as much as 100 rupees is paid for a good ambling mule.

October 12th, Monday

Jetsun Kusho called to-day. She is a sister of Dorje Khagmo (the thunderbolt sow), the only woman incarnation in Tibet. She is a shy, little, old nun and has come to Lhasa from Samding, where she lives with Dorje Phagmo, to look after a brother who is ill.

October 18th, Sunday

To-day we visited Sera Monastery. Sera, Drepung and Ganden are the three vast monasteries significantly known as the Three Pillars of the State. Although there were 5,500 monks in Sera, compared with Drepung's 7,700, the former gives the impression of being only about a quarter as big—although both are more like fortified cities than the abodes of contemplative monks. Both monasteries gave one the same impression: narrow, steep-walled pathways leading deviously from college to college, huge dark vault-like temples, with floors slippery with the spillings of innumerable daily tea-drinkings. And in contrast to this magnificent frescoes on the outer walls of the temples, and hanging *tankas* within, more beautiful and richer in colour than any we have seen elsewhere. These depicted conventional subjects such as the Wheel of Life, a superb blazing god of wrath ten feet high surrounded by a thousand lesser deities, and a line of seated Buddhas each with a different expression—placid, saturnine or cynically smiling.

The roofs of these monasteries are the most beautiful parts. The top few feet of the walls are formed of innumerable willow twigs laid horizontally and cut straight like a half used hay-stack. This matt surface is ornamented with gold signs and stained a deep, rich maroon forming a most attractive contrast with the gilt ornaments on the roofs, some of which are of great size. Having drunk tea with each of the abbots of the four colleges we gave a donation to the monastery funds.

October 19th, Monday

The weather has suddenly changed from summer to winter conditions. A week ago some of us were bathing in the Kyi Chu which in the last few weeks has changed from a swirling brown torrent to a sparkling blue stream. To-day we woke up to find several inches of snow on the ground and a bitterly cold wind blowing.

October 20th, Tuesday

To-day we were challenged to a game of "soccer" by Lhasa United, a team picked from Tibetan, Ladaki (Mohammedan) and Nepalese sides.

They turned out in garish Harlequin-coloured shirts. After a good, clean, hard game the Mission Marmots (as we call ourselves) won by scoring the only goal of the day. The goal was so small that the only hope of scoring was to go through oneself with the ball. Playing at 11,800 feet is not as much of an ordeal as one would imagine, and we appeared to be no more breathless than our opponents.

October 21st, Wednesday

The snow still lies deep in the hills. The Tibetans say it is unusual to have snow so early in the year. The sky is continually overcast and it is bitterly cold.

The harsh-voiced cranes which formerly collected in hundreds on the stubble fields are now moving South. Fish-eagles, kites, and some of the smaller birds have already gone. But in their place many species previously absent from Lhasa, or seen only in small numbers, have come down from the North to enjoy the comparative warmth of this sheltered valley. Vast flocks of brahminy, teal, gadwall, and other ducks are to be seen on the Potala ponds; Harriers and buzzards beat the open country for unsuspecting mouse-harts and small birds and by the river-side the more hardy cormorant and Tibetan gull have taken the place of the tern and swallow.

October 27th, Tuesday

We all lunched with the Chikyah Khempo, a mild and courteous white-haired monk who is the head of the Ecclesiastical party.

On arrival—Indian tea with Jacob's biscuits and hard dried apricots.

Later—Bowl containing three sweet rose-flavoured dumplings in warm sweet milk. (Tung-yan.)

Chopsticks, and squares of Tibetan paper on which to put the chopsticks, were provided and renewed after this course.

After another interval many small dishes were put on the table. These contained:

Stewed mutton in gravy with onion and carrots.

Tinned herrings.

Halved green peaches.

Stewed peaches.

Tinned pine-apple slices.

Dried dates.

Chinese sweets. (Koten.)

Melon seeds.

Pea nuts.

Mongolian ham.

Yak tongue.

Pressed beef.

Plain beef.

Small dishes of sauce and a Chinese spoon were brought for the above and were retained for the rest of the meal. (Tsu-de'.)

A continuous supply of chang (Tibetan barley-beer) was provided.

Then the main course followed. The above small dishes were left on the table until the last course (15th) appeared and there was no longer room for them.

These courses appeared in one or two large China bowls which were put in the middle of the table so that each person could take what he wanted with his chopsticks or spoon.

The dumplings (courses 3, 6, 9, 14)—two or three on a small dish—were brought round to each guest.

1. Shark's fins and minced mutton in gravy. (Yu-ti.)

2. Fine mince rolled in butter with vermicelli, celery and cabbage. (Chi-chou.)

3. Firm mince meat in pastry. (Sha-pa-le.)

4. Slices of a very firm-fleshed fish (rather like tunny) with onion, carrot, and boiled bacon. (Bou-yu.)

5. Sea slugs in soup with boiled pork. (Hay-sing.)

6. Round meat dumplings. (Rupoutsu.)

7. Green peas and mince. (Tre-ma.)

8. Hard boiled eggs, quartered and attached to a similar quarter of mince, in sauce. (Bo-bo-yun-tse.)

9. Pastry dumplings. (Chou-tse.)
10. Bamboo roots with boiled pork in soup. (Sin-tse.)
11. Eels in soup with pork and onion. (Chang-yow-tse.)
12. Rice with raisins, cherries, etc. (Chu-mi.)
13. Small squares of sweet fried bread.
14. Jam dumplings with sponge cake. (Meko-pin lama cow.)

15. Shark's stomach (Yuto); Boiled pork and carrot (Hlobay); Minced yak (Teru); Pieces of mutton (Hor-ru); Steamed rice with four varieties of wet bread-pastry in the form of flowers, peaches, horse-shoes and also soup (Ti-mo-mo).

November 2nd, Monday

The opening meet of the Lhasa Vale Hunt, "Mr. Gould's Hounds," hunted by Nepean, started—rather surprisingly perhaps—by hunting Gould (who laid a red-hot trail of paper) for several miles. The "kill" occurred within a mile of our house. This was such a success that in future "Mr. Gould's Hounds" will hunt twice a week. The Tibetans, by the way, could not understand what we had lost. They also have a tiresome habit of sweeping up any odd bits of paper they find.

November 8th, Sunday

Gould, Nepean and Chapman, in the course of a ride, put up a fox and hunted him for several miles over rather difficult country. Since the inauguration of Mr. Gould's Hounds our ponies have become much more handy.

November 10th, Tuesday

A few days ago we were challenged by the Ladaki football team. To-day we received a note from their Captain asking us to refrain "from wearing those fearful boots which some of you used last time. Because we are not able to buy such boots in the market and because we fear if you use those boots."

We played on the somewhat stony parade ground in front of the Norbhu Lingka barracks, and beat them six-love. Their team ranged from a bearded shaven-headed goal-keeper to a crowd of boys who closely followed the ball in a breathless pack.

November 21st, Saturday

Tsarong came to dinner with eight or nine of his family. Once again we found what a valuable source of entertainment is our 16 millimetre projector. With a selection of films mainly consisting of Charlie Chaplain's pre-war successes and our own

colour films taken in Tibet, we kept an audience of about sixty people (including servants) enthralled for nearly four hours.

Tibetans are indeed delightfully easy to entertain: though anything but uncritical, they appreciate everything that is done for them, laugh at every opportunity, and generally convince their hosts that they have thoroughly enjoyed themselves.

November 23rd, Monday

To-day the Regent returned to Lhasa, while Richardson and Norbhu went, officially, to present scarves to him, Nepean and Chapman rode out to photograph the procession.

In the valley the early-morning light was still more attenuated by having to pierce a pall of smoke over Lhasa city where housewives were already lighting their dung fires and burning fragrant incense to Buddha. Looking eastward we were amazed to see the Potala looming mysteriously above the haze, unsubstantial, like some fairy castle conjured up by a magician and poised precariously above the earth. All at once the sun's rays lit up the golden shrines on the summit, and the outlines of the building emerged, now to assume the solidity of a vast mediæval castle.

Even at this hour could be heard the deep droning boom of the ten-foot-long monastery trumpets, and a monotonous beating of drums and cymbals.

As we rode along we passed many of the pious at their morning oblations. Although it is scarcely seven o'clock the beggars have already reached their stations—unless they have slept there all night. From one patchwork of rags a goitrous face appears with protruding tongue (in Tibet the usual sign of respect), while an emaciated arm with fist clenched and thumb raised importunes us for alms.

Here are a party of swarthy nomads Hqr states visiting from Kham, or the Holy City for the first time, to see the Potala and especially the shrine of the late Dalai Lama. They are dressed in rough sheep skins and the women folk have their hair done in innumerable tiny plaits; on top of their heads are what appear to be several large yellow apricots each surmounted by a cherry; actually they are ornaments of amber and coral representing the savings of years. They are doing the holy morning walk, a longish circuit round the Potala. Each turns the inevitable prayer-wheel as he walks, and with downcast eyes murmurs the

interminable formula—OM MANE PADME HUM (the jewel is in the lotus). Several people lead tame sheep on yak-hair traces; many small dogs follow, usually with collars of tinkling bells round their necks. Some of the sheep are so accustomed to the proceeding that they follow without leads.

Here is a group of those whom we disrespectfully call "curb-crawlers." Bare-headed, dressed in coarse clothes with a leather apron in front, and flat wooden "shoes" on their hands, they prostrate their way round the holy walk. You see them lie flat on the ground with their hands outstretched in front of them, then they rise, bring their hands together in an attitude of prayer, take a step or two forward—just so far as their hands reached, and so it goes on, and their sins (one hopes) are purged away.

Among the crowd of worshippers, dressed much like the rest but usually preceded and followed by several servants, you may meet a member of the Cabinet or even the Duke himself—but not this morning. Like ourselves, to-day, all officials will be going out to pay their respects to the Regent.

He has been away from Lhasa nearly six weeks visiting monasteries. His chief task was to assist in the ceremony of placing the golden ornaments on the roof of the great monastery of Samye which has recently been rebuilt.

We are going as far as a village called Singdonka, four miles to the west of Lhasa, to film the procession as it mounts the steep village street. There is more traffic than usual to-day. Much of it is the Regent's baggage sent on ahead. Here is a train of sleek mules with its tents and camp furniture. Here the road is blocked by a herd of sleepy slow-moving yak returning to Lhasa for more barley-meal or wool. Respecting their sharp horns we leave the track and canter along on the grass where the hoar frost glitters purple in the thin sunlight. From the bordering marshes skeins of bar-headed geese rise and fly across the road with harsh cries, followed by lines of chestnut-yellow Brahminy ducks.

In honour of the Regent a line of stones has been put down on each side of the road, and at every few hundred yards improvised incense burners have been built of sods. When the Regent passes, azalea and artemesia leaves will be burnt to produce clouds of white smoke. And up above, quick to realize that something unusual is about to happen, are lammergeyers and vultures wheeling in great circles with apparently effortless wings. Passing

Drepung monastery, we reached Singdonka at eight o'clock. We had been told the procession would pass the village at about half-past eight. But as time means very little in Tibet we expected to wait an hour or two before anything happened.

More lines of mules pass, their loads covered with cloths of the Regent's colours—golden-yellow bordered with scarlet. Some servants with broad red hats like lamp shades appear in a cloud of dust to clear the way. They are followed by a group of monk officials in mulberry coloured robes and gold-lacquered hats. More officials pass, then a tiny incarnation lama, aged about four, is led past on a pony. He is dressed splendidly and wears on his hat an exquisite ornament of turquoise and gold. Slung across his back is a gold charm box containing a Buddha almost as big as himself.

At last the procession itself comes into sight. Women who were flailing barley beside the river drop their wooden flails and hurry to the roadside where a dozen incense burners start belching forth smoke.

It is difficult to see the procession clearly for the cloud of dust it raises. Leading it are mounted standard-bearers dressed in cloth of silver and high witch-like Mongolian hats. Following them are fifty or sixty mounted monk officials wearing gold lacquer hats or large yellow fireman-like helmets of wool. Nearer the Regent's palanquin are the higher officials in gala attire. The Shapes and Dzasas in embroidered yellow and blue brocade robes; lower officials in resplendent multi-coloured silk costumes with pleated black skirts and little white cockle-shell hats. The Regent's horses are led past, gaily caprisoned. The palanquin is carried by men in green coats and scarlet hats; the Regent himself is not visible.

November 28th, Saturday.

There was a great procession in the city to-day. An enormous image of the goddess Palden Lhamo was taken from the Cathedral and carried through the streets. This is the goddess of whom Queen Victoria was supposed to be an incarnation. Lamas, many of them grotesquely masked, first cleared a way through the densely crowded streets. When the goddess appeared long trumpets were blown, drums were beaten, and a great pyramid of straw was burnt in the street, while lamas danced and chanted. This goddess, when the world was young, was

about to destroy all creation; but in the nick of time a husband was found for her and he, apparently, appeased her wrath. On the day that she is taken round Lhasa her husband, who is kept in a monastery on the other side of the Kyi Chu, is also taken out and they are allowed to behold each other annually, at a distance of several miles.

November 29th, Sunday

In the afternoon several of us crossed the Kyi Chu by an ancient and dangerously leaky ferry and rode out to explore a ruined fort six or seven miles to the West of Lhasa. In the very heart of the ruin we found a secret temple of the Bom religion, a pre-Buddhist form of devil-worship. In an outer room was a collection of animals crudely stuffed with straw and suspended from the ceiling. They included a dog, a sheep, a snow leopard, a musk-deer, a gazelle and a shau (Sikkim stag). In an inner room, so obviously in recent use that we thought a monk was actually hiding there, were devil-traps and a variety of hideous images.

December 1st, Tuesday

The Yapshi Kung, with his wife and large family, came to dinner. These dinner parties preceded and followed by film shows, are now a great feature of our life here.

To-night's party was typical.

Our guests, having been invited for six o'clock, arrived an hour early.

The party consisted of the Duke, a lean, very short-sighted but very charming old aristocrat in his long yellow silk Shape's robe; his wife, a shy, rather florid woman wearing her hair looped up over a coral-studded triangular crown, with immense turquoise earrings, a charm box and a striped brown and red apron over an exquisite dragon-patterned Chinese silk dress; several grown up sons and daughters, one of the former being a favourite of the Regent; and four small children.

After drinks—we find Tibetans drink Cinzano, rather reluctantly, or lemonade—we went downstairs for the first part of our performance. Here it was at once apparent that something unusual was afoot. It transpired that Norbhu had told three or four of the Potala monks that we were having a cinema show and that they could come. But about thirty monks, reinforced by as many soldiers from the neighbouring Norbhu Lingka barracks, had "gate-crashed" the room, and while several monks had already

taken the chairs reserved for our guests the rest of the crowd completely blocked all ways of approach. As soon as the monks had been forced to sit on the floor and our guests—though somewhat crowded—had taken their seats we started, as some of them had never before seen films, with something familiar to them, a film we have taken of the Potala and the Lhasa bazaar. This was followed by Rin-Tin-Tin in "The Night Cry." This film has been a tremendous success in Lhasa. By the end of the fifth reel the women were weeping on each other's shoulders and imploring Rin-Tin-Tin to bite the villain's nose. After a Charlie Chaplin to restore their emotions we went upstairs to dinner while the uninvited monks and soldiers were ejected.

At dinner, to make the most of the small room, we sat, backs to the wall, on high Tibetan cushions while a variety of hors d'oeuvres-like dishes were served on the usual low Tibetan tables. Our guests proved less able to accustom themselves to foreign food than ourselves; but when Gould appeared with an armful of crackers the spirit of the party improved, and we were amazed to see a four-year-old girl fearlessly holding a firework, while her brother, aged six, who had been told to behave exactly as his father, smoked a cigarette with apparent enjoyment.

At eight o'clock bedecked with paper hats, we went downstairs to continue our film show. Colour films of Tibet, more Charlie Chaplin, the Hendon Air Pageant 1929, colour films of Sikkim, yet more Charlie Chaplin; then after a few more reels of Tibet, what would they like for the last reel? After some deliberation, well perhaps they would like to see a Charlie Chaplin. And so at eleven o'clock the party ended, and after a final drink our guests mounted their ponies and rode home through the clear Tibetan night.

December 23rd, Wednesday

Chapman spent four days at the Yamdrok Tso. The scenery there is quite different from that of the vale of Lhasa. In the first place there are no trees, and the whole landscape is dominated by an immense lake shaped like an irregular star-fish with twenty miles between the points. From the water-side, hills, in the summer brightened by a wild profusion of flowers, but now covered by sere brown grass, rise steeply for three thousand feet above the lake which is itself 14,500 feet above sea level. In folds of the hills, where the land flattens sufficiently to allow a certain amount of cultivation, are scattered villages often dominated by

a fort. Ruined villages and the derelict remains of an extensive irrigation system show that the land has suffered considerable depopulation. As one rides along the narrow stony track between the hills and the lake, countless minute black dots can be discerned usually near the summit of the most remote ridges: these are grazing yaks. Lower down are flocks of sheep and goats, tended by a solitary shepherd, often a mere child. Between the sheep and the yaks, a sharp eye might detect a number of fawn-coloured animals. Powerful glasses show them to be a herd of Tibetan gazelle. In the early morning these graceful animals come low down the hill sides to drink from the lake as all the mountain water-courses are frozen. By getting above them, before dawn, and waiting as they grazed slowly upwards, some cinema "shots" were obtained. But so wary are these animals that at the instant they come into the field of the camera's finder they become aware of it, and bound away up the mountain-side.

All along the edge of the lake were innumerable bar-headed geese, gadwall, mallard, pintail and wigeon; while a few hundred yards from the shore were packs of diving ducks—red-crested and common pochard, tufted ducks and goosanders.

At the eastern extremity of the lake, by Nagartse, there are shallows; and here alone save for a border of a few feet right along the margin, was the lake frozen. What had been weedy shallows and red-shank-haunted marshes in the summer was now a desolate frozen plain, swept by bitter winds and blinding sand-storms. However, in the still early morning, hundreds of tiny mouse-hares came out of their holes and basked in the sun, often sitting up, marmot-like, to squeak shrilly at any intruder; while ground choughs and several varieties of snow-finches and larks searched the ground for food. For miles this plain slopes imperceptibly towards the foothills of the great mountain belt which one has to cross (by the Kara La, 16,500 feet) on the way to Gyantse.

December 24th, Thursday

There was a strange ceremony on the Cathedral roof at dawn to-day. The Kashag and most of the senior officials, in ceremonial dress, visited the many shrines of the Cathedral, and then as the sun rose above the hills to the east of Lhasa they assembled on the roof where a tent had been put up so that they could drink their tea in comfort. Meanwhile a number of men, dressed in

ancient and somewhat dilapidated Tibetan armour and helmets, assembled in a line around the roof. One old warrior with drawn sword and uncouth cries led the war dance, while the rest sang and danced in chorus.

December 29th, Tuesday.

Any stranger visiting the Deyki Linka this morning might well have imagined either that the pied piper had just passed by or that we were starting a school. Actually we were having a children's party; and by lunch time about seventy of the sons and daughters of the Lhasa officials had arrived. They came on horse-back, either independently, preceded and followed by red-hatted servants, or sharing the saddle with a nurse or groom.

As soon as the children arrived they went upstairs for tea and Christmas cake; it was lucky that a good many were late, as there were more than we had expected and it was difficult to find a seat for everybody in our small room.

At about one o'clock the cinema show started. Rin-Tin-Tin, Charlie Chaplin, Aeroplanes, the Grand National, Jubilee Procession—it must have been a bewildering experience for children who had never been away from Lhasa, never even read a book (other than the Tibetan scriptures), much less previously seen a cinema show. After three hours of this we persuaded them, with some difficulty, to go upstairs for "supper." We were much struck to see how charmingly they behaved to each other: if a child was unable to master the difficulties of spoons and forks his neighbour helped him; when one boy spilt his curry into his lap, the others laughed with him—not at him—and immediately helped to clear it up.

Then followed the great event of the day, the Christmas Tree. Admittedly a synthetic one, made by tying fronds of evergreen on to a carefully selected poplar; but nevertheless when the children came down to our darkened dining-room, at one end of which the tree glowed like a miracle, lit with electric bulbs of every colour, glistening with tinsel and festooned with teddy bears, humpty-dumpties, scarlet soldiers and other things entirely new to them, they gasped with astonishment and delight.

Then Norbhu, disguised as Father Christmas, but made more familiar by the addition of a helmet-like monk's hat, made a speech in Tibetan explaining the tree and wishing them all a

Happy Christmas. After that each child was given a present, and at six o'clock they set off to ride home.

We heard afterwards that on the way home the chief topic of conversation was whether there would be another Mission at Lhasa next Christmas!

January 1st, Friday

To celebrate New Year's Day we invited the following to a luncheon party: the Prime Minister; the four Shapes or Cabinet Ministers; the Yapshi Kung or Grand Duke; Tsarong Dzasa and Chikyap Khempo, the head of the Ecclesiastical party. Unfortunately the last named was unable to attend; he is a man of great age who suffers from rheumatism. Ringang, one of the boys who were sent by the late Dalai Lama to Rugby, came to assist Rai Bahadur Norbu with the interpreting. The guests arrived in reverse order of precedence; in Tibet, as in other countries, the more important a man is the later he can afford to be.

On arrival the first act of the Cabinet was to hand to Norbu a sealed packet made of coarse Tibetan paper, together with the customary white silk scarf of greeting. This turned out to be the permission for an Everest expedition in 1938. The Cabinet had been considering the question for some weeks and it struck us as an act of the greatest courtesy to hand over the permit so unostentatiously as a New Year's present.

After a six- or seven-course luncheon we went into the garden for coffee while Dagg prepared the cinema projector. In the shelter of our walled garden the sunshine was as warm as one could want.

One reason for our feeling of comfort and good cheer was to be found in the activities of the Chang girls. Normally these girls, resplendent with turquoise ornaments and coral and pearl head-dress, wait on the guests and keep their glasses full of chang. They also force guests to drink by jogging their arms and saying "tunda nang-ro-nang" (empty it, please). In really obstinate cases they are allowed to use a pin—even on the Prime Minister himself. But on this occasion most of us were drinking whisky, and once the girls had mastered the art of using a soda-water syphon there was no stopping them; and on more than one occasion they attempted to fill up the glass with neat whisky.

Out in the garden we had the Lhasa Band and dancers. The former consists of two Chinese fiddlers, one of them blind, a

bearded Ladaki who plays a flute, and a Tibetan with another curious stringed instrument. The blind fiddler, incidentally, enjoys the privilege of being allowed to smoke even in the presence of the Cabinet. The dancers, three women dressed like the Chang girls but less smartly, kept time with the band by stamping on a board, waving their arms about and singing traditional Tibetan melodies.

The cinema show lasted for two hours. The most popular feature was a film of the Jubilee. The Prime Minister remarked upon the extraordinary cleanness of London. One of our guests expressed surprise that the King couldn't afford amblers to pull his coach. (In Tibet everyone who can afford it rides an ambler; one reason for this is that the jolting of a trotting horse shakes the stones out of their jewelled ornaments.)

January 7th, Thursday

Chapman went out in the early morning to photograph a party of nomads who have recently arrived at Lhasa. These swarthy uncouth-looking men, dressed in a single sheep-skin garment are much larger and more healthy-looking than are the inhabitants of Lhasa. They have a reputation similar to that of the Pathan: if they make friends they will do anything for you, but if roused they are quick to use their knives.

These nomads had come down from the Chang Tang, the vast arid semi-desert away to the north of Lhasa. The journey took them fifty days. Hundreds of yaks carried wool while each sheep was loaded with a bag of salt on each side of its back. This salt is deposited on the shores of brackish lakes by the evaporation of the water. As barley cannot grow up there they exchange their wool and salt for tsamba (roasted barley meal) and other wares.

Their dialect differs very noticeably from that of Lhasa, indeed our Tibetan clerks can hardly understand them. They were vastly amused at being photographed, and showed none of the reluctance which characterises the attitude of most of the Lhasa people to the camera.

The women, who are remarkably handsome, wear their hair in innumerable minute plaits which are attached at shoulder level to a multi-coloured piece of canvas which hangs down almost to the ground. This cloth is ornamented with silver buttons, Chinese dollars and other trinkets.



THE FOUR SHAPES

Left to right—

Tendong, Bhondong, Kalon Lama and Lanchunga



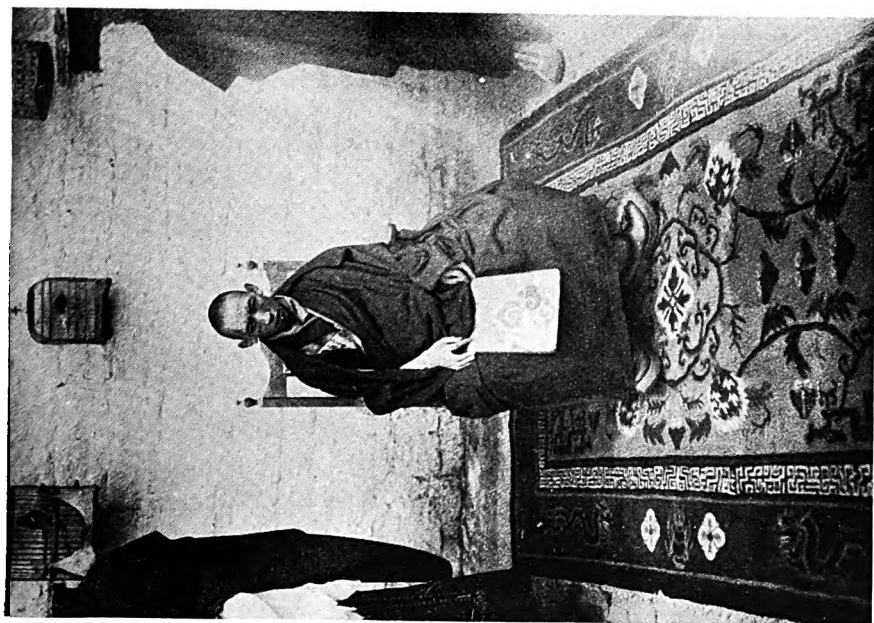
View from the Potala roof down on to the fortified court-yard
and gateways.



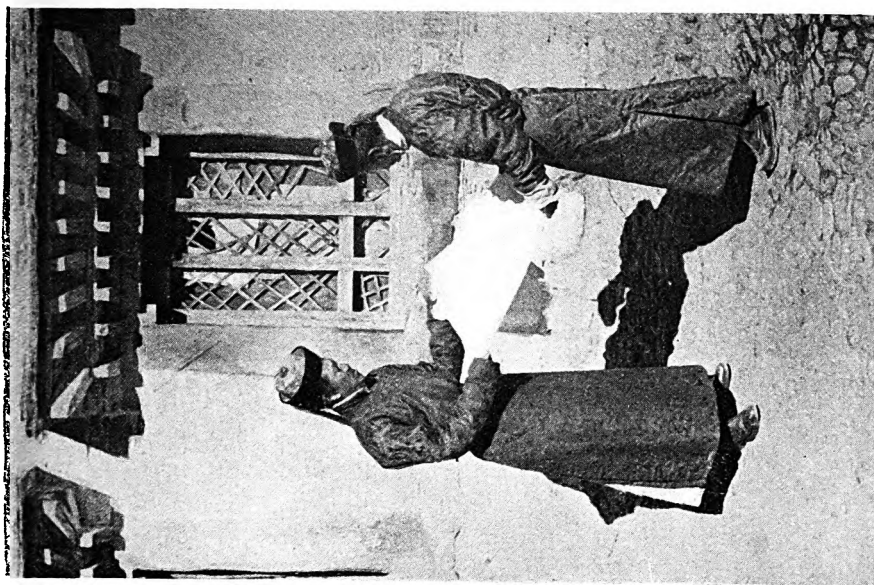
Teising Rimpochu wearing the gold lacquered papier-mâché hat of a monk official.



The Regent's palanquin. This one is gold lacquered and is only used near Lhasa. Notice the gigantic orderly behind.



The Regent of Tibet



Sonam Kazi and Norbhu Dzasa reading the Everest permit.

January 15th to 31st

Already there are signs of the early Lhasa spring. The ravens are now in pairs and on the last day of the month two were seen carrying beaks full of wool to line their nest on the craggy northern face of the Hospital Hill.

Now that there is no grazing to tempt the pack-animals to dally by the way, and no rain to spoil their loads, there is much traffic on the trade routes. Any day you can see trains of mules, donkeys and yaks carrying the rough Tibetan wool down to India; and, approaching the city, loads of brick tea sewn in compact square packages, bundles of dried yak-dung for fuel, and striped yak-hair bags of barley flour, which with the salt buttery Tibetan tea forms the staple diet of all the poorer classes. There are also many travellers on the road; most of them are coming into the Holy City to celebrate the Tibetan New Year (February 12th by our calendar).

Most of the travellers are nomads from the Chang Tang or the Hor and Kham provinces. At any time of the day these handsome dark-skinned nomads are to be seen doing the "Holy Walk" round Lhasa. In one place they have to turn several huge fixed prayer wheels; further on just below an immense painted Buddha carved on the cliff, they must put their foreheads to the rock, which is now polished to marble smoothness by the attentions of the faithful. In another place they must crawl through a hole formed by a boulder which leans up against the cliff. Nearby there is a deep hole worn in the rock since each pilgrim, as he passes, must put his finger there.

RECRUITING FOR THE ARMY AT HOME

BY "ASSAYE LINES"

The measures recently announced by the Secretary of State for War and which have been designed to ameliorate the lot of the British private soldier and to increase the attractions of service in the Army cover a wide field. That they will have some effect in improving the recruiting situation goes without saying but whether this effect will be sufficient to ensure that recruits will in future come forward in adequate numbers is a debatable question. Before it is possible to express a reasoned opinion upon the results which are likely to be achieved, it is necessary to analyse, first the motives which induce the average recruit to present himself for enlistment in the Army, and, secondly, the extent to which these new measures will tend to strengthen these motives. Improved conditions of service must always have inherent in them some element of attraction, but unless they have a bearing on fundamentals they will only attract the few who join for exceptional reasons and not the large majority who join for normal reasons and to whom we look to fill the bulk of our recruiting demand.

In considering this question of motive, it is essential to distinguish from the outset between the motives which lead a recruit to join the Regular Army and those which influence recruiting for the Territorials. The latter force is composed of part-time soldiers—this is not intended in any derogatory sense—and behind each man is his civil employment or the hope of such employment. Service in the Territorial Army is undertaken for many motives but the necessity of earning a living is not one of them. The attractions of soldiering without many of the disadvantages of a soldier's life, the desire to join the local unit and to share in the many forms of corporate activity which it offers, the persuasion of friends and of persons of local influence, and, above all, a very definite feeling of patriotism and of duty to the country all play their part. This latter motive has great influence, especially in times of stress, and for this reason we may confidently expect the present improvement in the figures of Territorial Army recruiting to continue due solely to the fact that the people of Britain are at last becoming aware that, in the ultimate resort, the Empire must

stand or fall by its own efforts and that a unilateral desire for peace is not sufficient by itself to ensure it.

These motives have, however, nothing like the same effect upon recruiting for the Regular Army. Local connection is of the greatest value and attracts a percentage of recruits who might otherwise hesitate to join for general service; some men join from a spirit of adventure and a desire to see the world; the assistance and co-operation of local authorities and of persons of local importance will always be required if maximum figures are to be attained, but it should never be forgotten that the underlying factor behind recruitment for the Regular Army is the economic one. While admitting that no direct comparison is possible between pre-war conditions and those which exist to-day, the pre-war situation can well be used as a starting point and that situation can be depicted most simply by two short quotations:

- (a) " . . . nothing approaching 35,000 recruits could be got annually in normal times (pre-war), except by a form of pressure which the most distinguished soldier of his day described as 'the conscription of Hunger.' " (F. S. Oliver in "Ordeal by Battle.")
- (b) "The majority of eighteen-to-nineteen-year-old recruits enlist because they have just ceased to be boys, and are unable to find regular employment as men. About four-fifths of them come to us because they cannot get a job at fifteen shillings a week." (Sir Ian Hamilton in 1911.)

Conditions have altered greatly since 1911 and however much we may have owed to it in the past, there can be no regrets that we can no longer count upon Hunger as a recruiting sergeant. Boys are still growing up and, no longer boys, still find difficulties in obtaining regular employment as men at the post-war equivalent of fifteen shillings a week, but these difficulties no longer necessarily force them into the ranks. The Army has no longer available the huge field of recruitment previously offered by the hungry adolescent unemployed but has now to compete with the many benefits conferred by our post-war social legislation. No one will grudge these benefits to our unfortunate fellow-citizens and no reasonable person will claim that the unemployed are enabled thereby to lead a life of ease and luxury, but the fact remains that it is now possible for the potential recruit to avoid

the recruiting sergeant and to tide over evil times while waiting for brighter days when the hope of a good and permanent job may become a reality. There are various other factors which have tended to reduce the attractions of Army life, such as competition from the other services and from sheltered trades, the desire of mechanically-minded youth to seek a technical occupation and the even more important effects of the psychological reaction resulting from the Great War. This reaction is to some extent natural but its importance has been greatly increased by the large post-war output of anti-military literature of all types and in the personal propaganda which has been poured forth in order to prove that the war was won by the individual politician in spite of the blunders committed and the avoidable slaughter incurred by the military commanders. These other factors have their influence but the basic fact remains that the youth of nineteen or twenty is no longer impelled to enter what may be a blind-alley occupation, and if the Army of to-day is to attract him it must offer something better. The new measures designed to improve the recruiting situation can only be considered in that light.

These measures can therefore suitably be placed in three categories:

- (a) Those designed to remove existing, and legitimate, grievances but which do nothing to improve the attractions of service in the Army as a career or as a stepping-stone to a career.
- (b) Those which tend to improve the conditions of a man's service beyond the minimum which he has the legitimate right to demand, but which still do not improve the man's chances of permanent employment.
- (c) Those which hold out the attraction that enlistment in the Army is a first step towards a career or towards permanent employment.

The contract now entered into between the man and the State implies that the man will be paid at a certain rate and that he will be fed, equipped, clothed and accommodated at no cost to himself. It is true that no standards are laid down and there is no guarantee that anything beyond bare necessities will be provided but, whether he has the right to expect it or not, the modern recruit will only be satisfied with a standard of living and of amenities similar to the standard he has been taught to expect in

civil life. Further, he will have a definite and reasonable grievance if he finds that he is compelled to accept certain deductions from his pay in order to provide himself with clothing which he is forced to maintain or with other items which are necessary to supplement the official scales of rations, clothing and equipment. The new concessions have done much to remove these grievances and to bring the conditions of life in the Army into line with modern standards, but the items which fall under this head can only claim to make service in the Army less unpopular rather than to make it more popular. Few officers will deny that these innovations are in fact long overdue, and little credit can be claimed for tardy reforms which have had to await the impulsion of a recruiting crisis to force their adoption. For eighteen years successive Governments have increased the country's social services, as often as not for the benefit of the very men who would not come forward to serve their country, but the soldier has been neglected, one is almost tempted to say exploited, until changing circumstances have once more forced the fact into recognition that a trained soldier is sometimes worthy of as much consideration as a semi-illiterate voter. Under this head of "social service" must be placed the majority of the new measures, such as improvements in rations, better barrack accommodation and barrack equipment, higher rates of allowances, etc., while measures such as the increase in recruit's kit allowance and the free provision of all extra uniform required by troops ordered abroad can only be described as the removal of methods of exploitation from which the Army has suffered too long.

The abolition of "holding" may with some difficulty be admitted into a higher category. The right to retain a man for an extra year with the colours does exist as part of the contract between the man and the State, but it is extremely doubtful whether the exercise of that right has ever been normally justified during the past fifteen years, at least to the extent to which it has been enforced. The liability to serve the extra year is admitted, but when one party enters into the contract knowing that the liability "may" be enforced, while the other party is quite certain that the liability "will" be enforced, a charge of bad faith is difficult to counter. Even if such a charge is legally untenable, the impression of sharp practice remains and such an impression is difficult to live down. There would therefore have been certain advantages from the purely recruiting point of view in making "holding" illegal with-

out the prior consent of the legislature but practical considerations render this impossible or at least extremely undesirable. It is to be hoped, however, that the abolition of the practice itself will be sufficient to restore confidence among our potential recruits.

There remains one measure which has the right to be placed in the third and highest category—the great increase in the facilities now offered for Vocational Training and in the efforts to absorb men in industry after they leave the colours. The transfer of the responsibility for Vocational Training from the War Office to the Ministry of Labour must prove advantageous both from the point of view of training facilities and of co-ordination with Trades Unions and with the demands of the labour market, and the only criticism which can be offered is to ask whether the present proposals go far enough. These proposals strike at the root of the problem and if they strike deep enough may go far to find the solution, but it is not yet certain that they in fact do so. The chance of competing fairly in the labour market at the end of his army service will do much to attract the type of recruit which the Army requires, but it is doubtful whether even the increased number of vacancies will enable every man who wishes it to be given the opportunity of learning a trade. A further difficulty lies in the fact that a trade qualification is not an end in itself but only the means to an end, and what the soldier really desires is employment after leaving the colours. At a time of expanding industry employment may follow automatically, but industry is not always expanding, and at a time of depression unemployment is almost as serious among the skilled as among the unskilled categories of labour. The ex-soldier rightly considers that at such times his previous services rendered to the State should count as an additional qualification in his favour. It must also be remembered that a certain percentage of soldiers have neither the inclination nor the capacity to learn a trade, and quite reasonably wish to return to the small towns or the country areas where they were born and where there may be little scope for skilled workmen. It may be impossible to force the private employer of labour to give preference to ex-soldiers, but it should not be beyond the powers of the Government to give the private employer a lead, and to take a very great step towards popularising service in the Army by reserving for ex-servicemen a proportion of vacancies in all civil departments of State, in the services controlled by municipal bodies and in all undertakings which enjoy a statutory monopoly.

To sum up, it is only fair to admit that the steps which have been taken represent perhaps one of the biggest advances made in modern times towards improving the conditions of service of the British soldier. These steps do not, however, justify a complacent attitude and it has to be acknowledged that the majority of the reforms merely tend to ease the hardness of the bargain which the State in the past has driven with the private soldier and to ensure for him a fairer deal in the future. Something further will be required before service in the Army can be made "popular" and before the Army can count in peace upon the services of the pick of the youth of the country up to the numbers it requires. The situation will never be entirely satisfactory under any voluntary system of recruiting until the recruit can contemplate the practical certainty, if not the guarantee, of employment at the end of his colour service, combined with reasonable amenities of life while he is in the Army and with the chance during his service of saving a small sum, however modest, which will help him to make a start when the rifle and the pack are laid aside.

AUTHOR'S NOTE

Since the above article was written, Mr. Hore-Belisha has announced that, as an experimental measure and for a limited period of time, all serving soldiers due for transfer to the reserve will be permitted to "extend" their service and that army reservists of Sections A and B will be allowed to rejoin the colours, with a view to "re-engaging" when their present engagement has expired so as to qualify for a pension after 21 years service. Although it is too early yet to endeavour to forecast the results of the experiment or the numbers of serving soldiers and reservists who will avail themselves of the opportunity offered them, the possibility of important changes in future terms of service to be offered to the soldier is clearly foreshadowed. These changes, if the results of the experiment justify their introduction, will have many far-reaching implications beyond their effect in keeping the peace strength of the Regular Army in future up to authorised establishments.

The first question which springs to mind is the effect which long service will have upon what is somewhat loosely called the Cardwell system: upon the system whereby our overseas garrisons are maintained by drafting annually from the garrison at home, the strength of both garrisons being kept at an approximately equal

level. If it were not for certain other modern complications, which will be referred to later, a return to a long-service system would have no appreciable effect upon this aspect of the organization introduced by Mr. Cardwell. A long-service battalion at home which exchanged periodical drafts with a long-service battalion abroad would, for example, prove an ideal arrangement compared with the pre-Cardwell system whereby a battalion was sent overseas, maintained by drafts of untrained recruits and left to stagnate abroad almost indefinitely.

It is upon another aspect of the Cardwell system that a change to a long-service army would have the greatest effect: upon the functions now carried out by the overseas garrison in training and passing to the reserve a large proportion of the men required to raise the home forces to their war establishment and to maintain them at that establishment until the post-mobilization recruit can be made available. A long-service army cannot build up a reserve and without a reserve, or some equivalent, the home garrison cannot in emergency produce a Field Force and replace the wastage which will be incurred during the initial stages of a major campaign.

If long service is to be introduced for the army or a proportion of it, some other means must be found for building up this reserve or, if the Army Reserve, as we know it, cannot be kept up to strength, some alternative methods must be thought out for obtaining a supply of trained soldiers from civil life on mobilization. Simultaneously with the introduction of long service it may be possible to introduce for a portion of the army conditions of engagement with an even shorter term of colour service than is now normal, the long-service portion being primarily concerned with manning our overseas garrison, the short-service portion being used to pass men rapidly through their colour service into the reserve. Alternatively the functions of the present Army Reserve may be transferred to a Special Reserve on the lines of the old Militia, the personnel of which would receive an initial period of training and thereafter come up for short periods of refresher training, annually or biennially. It is more probable that some form of combination of the above two expedients would prove most suitable.

Apart from the question of an army reserve, the chief complications which can be foreseen in attempting to maintain a long-

service overseas garrison from a long service garrison at home arise from modern developments which have resulted in an increasing divergence between requirements at home and abroad in standards of organization, training and equipment. It will be many years before the horse, for instance, is entirely eliminated from our overseas establishments and even when that situation is reached, it is very doubtful whether we can ever again hope to attain the approximate similarity which has hitherto existed in the basic organization of our forces at home and abroad. For this reason alone the introduction of long-service will tend to weaken the links forged by Mr. Cardwell—not necessarily the links between individual units so much as those which connect our home and overseas garrisons considered as a whole.

The weakening of these links leads us to the chief difficulty inherent in any scheme for a long-service overseas garrison—the length of tour which the soldier is to be called upon to serve abroad. The personnel of the Navy serve for 21 years to earn a pension, but during these 21 years they alternate between foreign and home stations and, for the majority, a foreign service tour lasts from two to three years. If the long-service soldier is to be called upon to serve for the most of his 21 years abroad, the pension of 14/- a week which the private soldier can now earn may not prove a sufficient attraction, unless in the place of a tour of service at home he can be sure of regular periods of home leave, and unless the conditions under which he and his family are called upon to live in many overseas stations can be greatly improved. A long-service army must of necessity make greater provision for married families and, if the service is to be popular, the army in future will have to make better provision.

It is premature at this stage to do more than draw attention to the fact that, even if long-service proves popular enough to solve the problem of keeping the strength of the army up to peace establishments, it will bring with it many other problems to which a solution will have to be found. None of these other problems should prove insoluble, but in the meantime we can only watch the progress of the experiment in the hope that it will to some extent at least prove successful. It is only when the results of the experiment become apparent that all the implications which will arise from a change of policy can usefully be considered in detail.

ON READING FOR THE STAFF COLLEGE

BY HYDROCHLORIC

From time to time articles appear in the service journals advising young officers how to prepare for the Staff College Entrance Examination. Usually the authors map out a programme which includes several hours a day of private study, frequently recommend a formidable number of books to read, and convey the impression that the Staff College is never entered except by prayer and fasting. In the advertisement pages of the same journals there will probably be found an invitation to take "Messrs. So-and-So's" course of cramming which in the last few years has scored so many successes in the examination. This course probably costs about £20. Such methods of preparation may be a necessity to some, but they are calculated to deter the more modest officer who feels that he will never be able to assimilate so stupendous a quantity of book-learning. The purpose of this article is to suggest that there are other ways of attaining the end, and that, for various reasons, they are worth trying.

We are an overworked and underpaid generation of soldiers and should therefore practise economy in both time and money. No one supposes that success can be obtained without work; the point is to avoid unnecessary work. Many officers who are preparing for the examination are a curse to their wives and friends. Every normal activity is partially eliminated, a bare minimum of time is allowed for exercise, and life becomes a burden to themselves and their associates. Their regiments are the losers, for they spend the minimum amount of time on parade, in the lines and playing games, and are fretting all the while to get away to tackle that "three-hour paper" that must be sent home next mail. What prospect is there of an officer expanding his outlook to the best advantage when he undertakes his noviciate in such narrow fashion?

Crammers may be a necessary evil but they should at least be regarded as a last resort. First of all they cost money, which means, in many cases, the curtailment of leave and other amenities, and, secondly, they have all the failings of any mass production plant. Those who have been to the Staff College will remember the type of man who, at a syndicate meeting, has to turn up his crammer's

notes before saying what he (or his crammer) thinks. The examiners do not really care what "Messrs. So-and-So's" views are, for example, on mechanization, and, when they have come across them in five or six consecutive papers, they hail with relief the answer of a man who has thought things out for himself.

The Staff College candidate is now allowed to sit for a total of three examinations. Let him consider his first effort as a trial trip. In the second, if necessary, let him profit from the mistakes he made on the first occasion. In the third, if any, let him seek what adventitious aid he pleases, such as the midnight oil, the abandonment of leave and the employment of "Messrs. So-and-So."

How then is the candidate to prepare himself for the first sitting and what are the tips worth knowing so that he may avoid the drudgery to which so many competitors sacrifice themselves? I can only put forward a few ideas for the benefit of those who, like Jurgen, are prepared to "try anything once," but I do know from actual results that there is a measure of virtue in them.

The first essential for satisfying the examiners is proficiency in what, for want of a better description, may be termed "military writing." This is a most difficult variety of literature, and before going further I can state at once that this article is *not* in the best tradition of military writing. I sometimes think that in days gone by, when, for instance, Wolfe of Quebec continued to study Latin after he was commissioned, someone must have given Tacitus more than was his due, and that the result was the exactly brief type of expression which is nowadays demanded of the soldier. In military writing you must be brief, grammatical and clear; you must avoid any suspicion of imagery and you must be impersonal—there must be none of this nonsense of "you" or "I" as in my last few sentences. It is a queer form of English and deadly dull to read, but it is no use arguing about it because it is the acknowledged model. The best examples of this form of writing are found in the training manuals and the section on "Leadership" in *Infantry Training*, Volume I, shows how an expert can produce really classic English without offending the canons of military writing. War dispatches and training memoranda are also of interest, but the majority of generals do not conform to their Staff College teaching, especially when they

write books. Much advice on this subject has already been given by the Military Training Directorate and by examiners in their criticisms of papers submitted; these injunctions will repay study. There are also three books which are invaluable to those who find it difficult to believe that the pen is mightier than the sword. They are "On the Art of Writing," by Quiller-Couch; "How to Write Clearly," by Abbot, and "The King's English," by the Fowlers.

Perhaps the detailed method of attack is better left to the candidate—how much he works, the times he works, and when, for the sake of sanity, he will cut out work altogether—but it is possible to suggest a general framework upon which a plan in detail may be built. With most people, I think, there must be what can conveniently be called a "preliminary" period and an "active" period. To dogmatize as to the time to be devoted to each would be foolish, but remembering that it is the candidate's first attempt at the examination, I doubt if the preliminary and active periods need in most cases exceed one year and two months respectively.

It is a popular fallacy that it requires a brain quite out of the ordinary to get into the Staff College; in actual fact men with good average intelligence often do better work at the College and in staff appointments afterwards than their more brilliant contemporaries. Brains are not needed so much as the broad mind which can only be acquired by extensive reading. Much of the preliminary period must, therefore, be taken up by a conscious attempt to broaden one's outlook; this was certainly true of my own generation though it may not have quite so much force to-day. With some otherwise good officers this means heaving themselves out of a narrow regimental rut and realizing with difficulty that the world does not revolve round Dogsbody's Horse or the Loamshire Rifles. But to become well-read is not really a burdensome business though to many soldiers it means a change of reading. If the candidate swears to himself that he will read nothing that might not reasonably be found in a military library, he may regret Sapper or Edgar Wallace at first, but he will soon realize what he has been missing if he has left alone such writers as Winston Churchill and Guedalla.

In the preliminary period also one must do the spadework for the empire paper, the campaigns and the optional subjects.

To keep abreast of empire developments *The Times* and even its weekly overseas edition are most useful. Now is the time also to read the standard works on optional subjects other than languages, and to make notes sufficiently adequate to bring everything back to mind in the shortest space of time. Part of the preliminary period also must be devoted to a reasonably thorough but unhurried study of the campaigns prescribed. Their number is almost astronomic and calculated to deter the bravest candidate; the only solution I know is to take an approved book on each campaign and to reduce it to notes, chapter by chapter, so that, on the eve of the examination, important lessons can again be rapidly called to mind. The critic may say that this is a heavy programme for the preliminary period, but there are two things to be said in mitigation. One is that the candidate can take just as long as he likes over it, and the other is that this is the period from which one derives lasting value whether the examiners are kind or not. It opens up to the average soldier avenues of study which, but for the existence of the Staff College, he might never have thought of exploring, and which, if followed in leisurely fashion, amply repay the effort involved.

The active period is not so amusing. It is nothing more nor less than "cramming," for it involves storing in one's head a mass of information which is intrinsically useless, or at the best, of only temporary value. By this I mean such things as current tactics which change with weapons or fashions, military law for whose proper exposition the Judge-Advocate-General's department exists, and facts about the Empire and its communications, so admirably set out by Cole, but the memorizing of which, except for examination purposes, would be sheer lunacy. It is a soul-destroying business and is, therefore, better condensed into the minimum possible time. Some students will not undertake it in fact until the New Year's Ball is over, and the Proclamation Parade next morning has reminded them that the Christmas holidays are at an end. Whatever else is done in the active period, the official manuals must be thoroughly mastered. In the ordinary course of duty officers come to know them fairly well but that is not enough; there are so many problems, such, for example, as transportation and the work of the services, with which the regimental officer is usually unacquainted. The manuals are, after all, the set books for the examination, and the

examiners cannot be blamed if they fail candidates for obvious ignorance of their contents.

It is not possible in a short article like this to discuss each one of the examination papers in detail, but there is room for a few general remarks about the obligatory subjects, followed by a brief consideration of the merits of the various optional subjects the candidate may take. I have emphasised the need to study the manuals and I can give two examples of what is likely to occur if these are neglected. Some years ago a man who had been made a brevet-major, largely for work in a junior "Q" staff appointment, failed in the organization papers. In the same year an officer who had been commended for work on a particularly complicated court-martial failed in military law.

But though the manuals must be "crammed" in the active period, every possible opportunity should be taken in the preliminary period of increasing one's practical professional knowledge. It sometimes occurs that a commander knows an officer, sufficiently well to be able to sign Certificate D of his application without attaching him to his staff; to miss an attachment in this way is to be avoided. There is much tactical knowledge and experience to be picked up by being in close contact with a formation commander and his staff during the collective training season. A candidate should also make every effort to obtain an attachment to one or more of the other arms of the service, get permission to attend every training exercise he possibly can, and, remembering the Achilles heel of so many, apply to be a member of every interesting or difficult court-martial in his station. Lastly he should try to get a vacancy on the Army Headquarters Staff College Course which provides the best instruction of its kind in India.

The first thing to remember about optional subjects is that they must play a very definite second fiddle to obligatory subjects. Three are permitted but two are quite enough for the average man to undertake. Moreover (though I write without access to statistics), between 60 and 70 *per cent.* in each of two optionals will, in most years, secure a candidate a competitive vacancy.

Languages are obviously good value if the candidate has at any time been up to interpreter standard, but many more humble linguists may score marks if they possess a good groundwork in grammar and construction, and the "feel" of the language

as regards idiom. It is also necessary to become familiar with military terms in the language chosen; these can be easily acquired from works on modern campaigns, and from a training manual or military magazine of the particular country. I have been told that many candidates have found Urdu an unprofitable venture, presumably because they had not realized that the Higher Standard which many of them had been required to pass was comparatively not so "high." The great advantage of languages to the man who is not a natural linguist is that there is no *à viva voce* test, and the French candidate who is completely obfuscated after two minutes conversation with a Marseilles taxi-driver has no need to lose heart.

The history of Europe and the United States is doubtless an interesting subject, but its ramifications are so wide and the possible variety of questions so great that it does not seem to be a very good investment. Better value is to be gained from the history of India, for the field of study is much more circumscribed, and, for the Indian Army Officer at least, more appropriate and probably more useful. Moreover, the later part of the Indian period is fairly well known already to the majority of officers who have served in India for any length of time.

The obsolete title of "Political Economy" is a fair indication of the standard expected in this subject. Fundamentally economics is a common-sense science, but it has been hedged around by pundits with a great deal of technical jargon. It is also highly controversial and I believe our universities are frequently at economic war. To win marks from this paper the chief requirements are a knowledge of present-day economic problems and the ability to discuss them in the economist's language. This is not as hard as it sounds, for there are a number of good, simple works published from which the main principles of the science and the jargon already referred to can be acquired. At one time the examiners in "Political Economy" were so pleased to find anyone who had read even one book on economics that marks fell like manna from heaven; even now it is a profitable subject.

I am not qualified to advise on the business organization paper, but it is a study which may be of secondary value as a qualification for civil employment when the harness is unbuckled. The very high standard of the mathematics paper was reduced

a few years ago but it is still out of reach of the average school-and-Sandhurst soldier. It may appeal to some officers from the "Shop" and the universities.

Now I recollect that in military writing "all papers must have a conclusion," and so I will try to summarize these rather random views in an exhortation to the imaginary candidate. Firstly, do not take the examination too seriously. If you do, you will lose your sense of proportion and your sense of humour and become incredibly tiresome to your friends and to the examiners as well. Secondly, take full advantage of the natural facilities for extending your professional knowledge which your normal life offers, as opposed to the artificial assistance sold by cram-mers. Thirdly, study the syllabus and decide before you begin to work in what optional papers you are likely to score the most marks, and then, having made ample provision for the obligatory subjects, allot to each the time you consider necessary. Finally—and this is not a real "conclusion" because the point is mentioned for the first time—do not fail to get into the Staff College. Much of what has been written above may be quite useless to many candidates, but not so this last piece of advice. You will have to work like a nigger at the College and many times you will refer with scorn to that classic phrase "the best two years of your life." But those years *are* good. You will get excellent teaching from first-class instructors, you will become humanized from long contact with intelligent contemporaries, and you will make friends that you will never lose.

THE FINAL PHASE OF THE MESOPOTAMIA CAMPAIGN

12TH MARCH 1917 TO THE ARMISTICE—(*Continued*)

BY LIEUT.-COL. J. E. SHEARER, M.C., 1/15TH PUNJAB REGIMENT

14. *Summer 1917*

The hot weather was spent in training, and in consolidating our defences and administrative arrangements. 200,000 Turks had been set free by the Russian collapse, and it was known in April that a large force under Von Falkenhayn* was being collected probably to advance down the Euphrates in the autumn. So General Maude decided to capture first Ramadi and then Hit to dislocate the enemy's preparations for this counter-offensive. It was also necessary to capture Ramadi to cover the repair of the Sakhlawiya dam.

The first attack on Ramadi was made on 11th July, but was a failure on account of intense heat and dust-storms. Our casualties from heat-stroke were greater than from the enemy's fire, so the attempt was abandoned until the climate became cooler.

In the meantime a railway was built from Kut-al-Amara to Baghdad, and the civil administration was organised on a permanent basis under special political officers. Throughout the summer it was steadily becoming evident that little further help could be expected from the Russians.

15. *Completion of General Maude's preliminary preparations (August and September 1917)*

By the middle of August General Maude considered that the main Turkish counter-offensive would probably come down the Diyala as well as down the Euphrates, with subsidiary attacks only down the Tigris. But he was confident that he would easily defeat these attacks, even without Russian assistance, as the Turkish lines of advance were widely separated, the enemy were known to have insufficient transport, and he himself was on interior lines. He concentrated, therefore, on making his force mobile by building bridges, collecting local supplies on the Diyala and Euphrates as well as at Baghdad, replacing his animal transport by Ford Van Companies, and by building railways from Baghdad to Baquba and Falluja.

* NOTE.—This force was the much vaunted "Yildirim" group of armies.

He obtained the promise of reinforcements consisting of two divisions, a Cavalry Brigade, a squadron R. F. C., and certain Light Armoured Motor Batteries, Trench Motor Batteries and Machine-gun Companies in order to enable him to hold the Baghdad Vilayat by means of an active defensive. The maintenance of our gains at Baghdad and the denying of Persia to the enemy was essential for the safety of India, as the enemy's Pan-Turkish propaganda in Persia was on the increase.

All through September there were persistent but confused rumours of the concentration of Von Falkenhayn's army about Aleppo; but on 20th September the War Office reported that a big counter-offensive on Baghdad was unlikely as the Turks did not dare to risk failure. The C. I. G. S. also informed General Maude that General Allenby would carry out an offensive in Palestine in October 1917, and that that should assist the defence of Baghdad appreciably. But it was not until much later that General Maude knew for certain that the Turkish counter-offensive to retake Baghdad had been cancelled.

By the end of September 1917, the 15th Indian Division (from the Euphrates about Nasariya) had almost completed concentration at Baghdad and the leading Infantry Brigade of the new 17th Indian Division had taken over Falluja from the 1st Corps. The despatch of the 18th Indian Division early in 1918 had been promised, but all the other reinforcements mentioned above were already *en route*.

The weather was becoming cooler and General Maude's preparations were sufficiently advanced to allow active operations to recommence.

16. *Capture of Ramadi (27th to 29th September 1917)*—(*Vide Sketch Map No. 4*)

The Turks were holding Ramadi with about 100 cavalry, 3,500 infantry and 10 guns. As will be seen from Sketch Map No. 4, their defences were mainly facing east astride the Falluja-Ramadi road. They thought that their right flank was secure, resting as it did between the Euphrates Valley Canal and the Aziziya Canal, since the water of the Habbaniya Lake was too saltish for our force to drink if it did advance by that flank.

The attacking force consisted of the 15th Indian Division, 6th Cavalry Brigade, a Flight R. F. C., a Bridging Train detach-

ment and various other army artillery, armoured car and engineer units. Of this force the 50th Indian Infantry Brigade was already at Falluja, but the rest had to march from Baghdad. While the concentration was taking place in the area Falluja-Madhij-McCudden's Post, General Brooking skilfully confirmed the Turks in their wrong appreciation of his probable line of attack. He built a bridge at Madhij and sent a battalion across the Euphrates there; he ostentatiously had the main road improved; and the 6th Cavalry Brigade made demonstrations along the left bank of the Euphrates. All real reconnaissances were done by air. Even the intention paragraph of his operation orders for the first attack only stated that he intended to capture the Mushaid Ridge preparatory to the attack on Ramadi itself. It gave no indication of his real plan of attack.

During the night 27th/28th September the advance commenced, and by 07-00 hours on the 28th, the 42nd Infantry Brigade, supported by the 12th Indian Infantry Brigade, had captured Mushaid Ridge and Escape Hill, and the sappers had repaired the dam near Escape Hill and made it fit for the passage of all arms.

At 06-50 hours General Brooking ordered the 6th Cavalry Brigade, which was demonstrating north of the main road, to move south-west, under cover of Mushaid Ridge, cross the dam and the Aziziya Canal, cut the enemy's line of retreat west of Ramadi and attack his rear. These orders were fully carried out by 16-00 hours with little opposition.

At 07-00 hours General Brooking ordered the 42nd Infantry Brigade to side-step across the dam and capture Middle and Double Hills. This order was apparently quite unexpected by Brigadier-General Lucas, the Commander of the 42nd Infantry Brigade, who thought that his brigade was too scattered to comply quickly with this order; so he asked for this task to be given to the 12th Indian Infantry Brigade instead. However, the 42nd Infantry Brigade managed to cross the dam first after all and captured Middle and Double Hills by 10-30 hours with little loss. The next stage of the attack, the capture of Ramadi Ridge by the 42nd Infantry Brigade and of Aziziya Ridge by the 12th Infantry Brigade, succeeded after heavy fighting and many casualties, and those positions were maintained throughout the night.

During the night the Turks made a determined but unsuccessful attempt to break through the 6th Cavalry Brigade.

The 12th Infantry Brigade renewed their attack at dawn on the 29th September and, after heavy fighting, captured Shaikh Faraja Ridge and the Aziziya Bridge by 07-30 hours. The situation was then somewhat anxious until 09-15 hours, when large numbers of Turks began to surrender to the 2/39th Garhwalis who were holding the Aziziya Bridge.

At 09-30 hours the 42nd Infantry Brigade were ordered to advance from Ramadi Ridge. As soon as they did so the Turks on their front began to surrender, and by 11-00 hours the Turkish commander and his whole force had surrendered. This success had a decisive effect on the inhabitants of the Baghdad Vilayat who regarded it as the death knell of Turkish hopes in Mesopotamia.

17 *Lessons of capture of Ramadi*

This hard-fought and skilfully planned battle has many interesting lessons, the principal of which are:

(a) *Misleading the enemy as to one's intentions*

This principle was always difficult to apply in Mesopotamia because of the swarms of Arab labourers in our supply depots and river-craft. These were all potential enemy spies. I have shewn how skilfully General Brooking used this leakage of information to confirm the enemy commander in his original wrong appreciation.

Apparently General Brooking did not even let his own brigadiers know his real intention until after the battle had started.

(b) *Proper use made of the mobility of cavalry*

Mesopotamia is excellent riding country but it is bad country for dismounted cavalry action, as there is no cover for led horses near the firing line.

In this brilliant action the Cavalry Brigade had used its mobility to get to the decisive place quickly and then risked everything by taking up dismounted fire positions well away from their led horses. The moral effect on the enemy of this bold use of their mobility, despite their limited fire power was amply justified. It is interesting to compare the uniformly successful

results obtained by the bold mounted tactics employed by our cavalry after April 1917 with the conspicuous lack of successful cavalry actions during the earlier periods of the Mesopotamia campaign.

(c) Control by Commander

It is interesting to contrast General Brooking's effective control throughout this battle with the lack of control of our commanders during 1915 and 1916, once their attacks were launched. Of course one reason is that General Brooking had a far better Signal Organization than was available earlier in the campaign; but the real reason seems to have been that General Brooking used his cavalry for the distant out-flanking movement, while keeping his infantry concentrated. He thus gave his infantry a real "punch" and also had a reserve available in his own hand throughout the battle.

The earlier commanders largely used their cavalry in the passive role of keeping off Arab marauders, and from the start spread their infantry over a very large front, thus making the infantry attack weak everywhere and leaving themselves no reserve at all with which to meet emergencies. (The battles of Es Sinn, 1915, Ctesiphon and Dujailah all support this criticism.)

(d) Water-supply

The Turks had thought that the lack of drinkable water on their right flank would render that flank safe from a turning movement, but General Brooking overcame this difficulty by organizing water convoys in Ford vans. On 28th September alone 14,000 gallons of water were thus supplied to the fighting troops.

18. Strategic situation in October 1917

By the beginning of October 1917 it was becoming increasingly certain that no large-scale Turkish counter-offensive was to be expected in the near future in Mesopotamia as Von Falkenhayn's troops at Aleppo had started to move to Palestine, where General Allenby's preparations for an offensive had been noticed by the Turks.

On the other hand there were indications that the enemy meant to take advantage of Russian inactivity to send small parties

into Persia to carry out anti-British propaganda there and towards the Indian Frontier.

As soon as the weather was cool enough, and the light railway had reached Shahraban, General Maude decided to drive the Turks from the left bank of the Diyala and occupy the Jabal Hamrin astride the river in order to—

- (i) Prevent enemy parties getting into Persia.
- (ii) Deprive the enemy of a screen behind which to stage attacks on our right flank.
- (iii) Prevent him from interfering with the supply of water for irrigating the land along the Diyala.

19. *Second action of Jabal Hamrin (18th to 20th October 1917)*—(*Vide Sketch Map No. 1*)

This task was entrusted to General Marshall, the G. O. C. IIIrd Corps.

For this operation he divided his Corps into three groups as follows:

- (i) *Right Group*.—14th Division (less 35th Indian Infantry Brigade and 7th Cavalry Brigade).
- (ii) *Centre Group*.—35th Indian Infantry Brigade.
- (iii) *Left Group*.—13th Division (less 39th Infantry Brigade).

His plan was first to drive the Turks out of their advanced position at Delli Abbas with his Left Group, and then to hold them in front with his Left and Centre Groups on both banks of the Diyala, while the Right Group drove in the enemy's left flank.

The attack started on 18th October with the capture of Delli Abbas by the Left Group. The Centre Group was then north of Shahraban in contact with the enemy outposts. During the night 18th/19th October the Right Group (less the 7th Cavalry Brigade at Mandalli) concentrated in the area Chahriz-Tel Ibara.

On the 19th and 20th October, the 37th Indian Infantry Brigade, moving along the northern slopes of the Jabal Hamrin with the 7th Cavalry Brigade in the plain on their right, captured Qizil Robot and the left bank of the Diyala. Meanwhile the Left Column occupied the Jabal Hamrin on the right bank north of Mansuriya.

The enemy's retirement was an orderly one, obviously according to plan, and General Marshall accomplished his task with only 37 casualties.

It is noteworthy how this well-conceived, flanking attack succeeded; whereas the hurriedly-prepared, ill-concealed plan for a frontal attack on the same position on 25th March 1917 failed with considerable casualties to us.

20. *Actions at Daur and Tikrit on 2nd and 5th November 1917—(Vide Sketch Map No. 5.)*

(a) Preliminary Moves

As General Maude was now certain that the Turkish main forces were being employed in Palestine, he considered that he had a good chance of striking their XVIIIth Corps on the Tigris. They had an Advanced Base at Tikrit, so the destruction of the dumps there would mean a serious delay in the staging of any future counter-offensive by the Turks on the Tigris. The position at Tikrit and the covering position at Daur were both well-entrenched and strongly held. The general lay-out of these defences can be seen in Sketch Map No. 5. There were also some 5,000 Turks at the Fat Ha Gorge, some 30 miles north of Tikrit.

General Maude ordered General Cobbe, the G. O. C. 1st Corps, to attack the Daur Position on 2nd November, with the object of destroying the Turkish 51st Division there before it could be reinforced. The operation was to be carried out by the 7th Division (less 21st Indian Infantry Brigade) plus the 8th Indian Infantry Brigade and the Cavalry Division on the Right Bank of the Tigris, and by the 21st Indian Infantry Brigade on the Left Bank. As surprise was essential, the concentration of these troops was carried out at night, and they remained concealed as far as possible from air observation during the day. The measures for concealment appear to have been successful.

(b) Action at Daur

The attack was to commence at first light on 2nd November after a night march, on the general plan shewn in Sketch Map No. 5. The role of the 21st Infantry Brigade was to protect our watering parties; the Cavalry Division was to surprise the enemy and exploit vigorously any success which might be achieved.

The 7th Divisional attack was carried out with the greatest sion whose attack was made exactly as planned; but the Cavalry Division were misled by some enemy camp fires and so did not get round the enemy's flank as intended.

The 7th Divisional attack was carried out with the greatest gallantry, with the 28th Infantry Brigade leading and by dark the entire position had been captured after hard fighting.

Next day the Cavalry Division confirmed that the enemy had retired to their Tikrit Position. General Cobbe then proposed to return to Samarra, but General Maude telegraphed that the enemy might evacuate Tikrit if attacked, as they were already removing their stores from there. A plan of attack was suggested, but the actual date was left to General Cobbe to decide.

(c) *Action at Tikrit*

General Cobbe decided to attack on 5th November, after a night approach. The ground along the river bank was too broken for night marching, so the general plan for the 7th Division's attack was on much the same lines as for the attack on Daur. But as the enemy position was 8 miles long and very strongly held, the Cavalry Division was given the task of pinning the Turks on the right of the enemy's position to their ground to prevent them counter-attacking the left flank of the 7th Division.

Detailed information of the enemy's dispositions was obtained soon after dawn by patrols of the 47th Sikhs. It took considerable time for our artillery to prepare a barrage, but all arrangements were ready by 11-30 hours. At that hour the 8th Infantry Brigade attacked under a barrage and penetrated right through to the enemy's third line of trenches. The rest of the day was spent in a determined "dog fight" in which the Turks made many counter-attacks and the 7th Division lost heavily from enfilade artillery and machine-gun fire.

The Cavalry Division successfully accomplished its task of holding the Turks opposite them to their positions throughout the day. And in the evening the 13th Hussars (of 7th Cavalry Brigade) successfully carried out a mounted attack on the enemy trenches to prevent the flank of the 19th Infantry Brigade being counter-attacked.

The next morning it was discovered that the Turks had retired well to the north. A certain amount of stores fell into our hands, but the bulk had been destroyed.

General Cobbe's force then returned to Samarra.

21. *Comments upon the Actions at Daur and Tikrit*

(a) *Good Preliminary Staff Work*

Both the secret concentration of such a large force on very open ground and the accuracy of the night marches prove that the preliminary staff work was thorough and accurate.

(b) Use of Cavalry and Infantry

Here again the lesson which I have drawn from the capture of Ramadi regarding using the mobility of the cavalry for the wider movements and thus keeping the infantry concentrated for the main "punch" applies. But in this case an entirely different task was successfully given to the cavalry (*i.e.* that of holding the enemy infantry to their trenches and so preventing them from counter-attacking our Infantry).

(c) Water-supply

The official history does not say how the water-supply of the 7th Division was arranged so far from the Tigris, but doubtless here again the Ford van convoys made it possible for General Cobbe to keep his infantry much farther from the river than was possible during the battles of 1915, 1916 and early 1917, when there were no Ford vans and no water carts with infantry formations. The added circuit of action obtained by a commander who has adequate water-supply arrangements is worthy of note.

On 18th November General Maude died of cholera, to the deep regret of everyone in the Force. He was succeeded by General Marshall, while General Egerton succeeded to the command of the IIIrd Corps.

22. *Third Action of Jabal Hamrin (3rd to 5th December 1917)*—(*Vide Sketch Map No. 1*).

(a) General Plan of Attack

Soon after assuming command, General Marshall decided to attack a Turkish force which held Qara Tepe, and the right bank of the Diyala from Suhaniya, in the Jabal Hamrin, to Qala Shirwan. He hoped for surprise by a converging attack of the IIIrd Corps from Qizil Robat and Suhaniya, combined with a movement up the Adhaim by the Cavalry Division to cut the enemy's communications near Qara Tepe.

(b) Action of Cavalry Division

On 2nd December the Cavalry Division was unable to force the only practicable passage which they could find through the Jabal Hamrin north-east of Adhaim Village. On 3rd December the Turks opposing them had considerably increased, so General Marshall ordered them to hold their ground and on 5th December he ordered them to withdraw.

(c) Plan for IIIrd Corps Attack

General Egerton had planned to carry out his attack in two phases:

1st Phase. To attack the enemy on the whole front Qizil Robat—Suhaniya and turn both his flanks, his left by a crossing of the Diyala above Qizil Robat and his right by capturing Suhaniya and the Sakaltutan Pass.

2nd Phase. An advance on Qara Tepe along both banks of the Narin River.

The eastern attack was to be carried out by the 14th Division and the western attack by the 13th Division. Colonel Bicharakoff, with 500 Cossacks, 350 infantry and some artillery, who had recently arrived from Persia, was detailed, along with the 12th Indian Cavalry, to cover the right flank of the 14th Division during both phases of the attack.

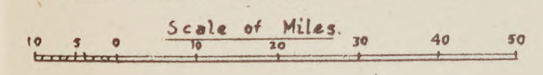
At dawn on 3rd December, after a night advance, the 35th Indian Infantry Brigade were to secure the left bank of the Diyala from Qizil Robat to the Jabal Hamrin to cover the crossing by the 37th Indian Infantry Brigade. The 35th Brigade, the 12th Cavalry and Bicharakoff's Russians were then to move up the eastern bank of the Narin River and secure Qara Tepe.

The 38th Infantry Brigade, also after a night march, was to secure the hills north of Suhaniya; meanwhile the 40th Infantry Brigade was to outflank the enemy there and secure the Sakaltutan Pass. The 40th Infantry Brigade was then to advance on Qara Tepe in co-operation with the 35th Infantry Brigade.

(d) Capture of Qara Tepe

This plan was successful and Qara Tepe was captured on 5th December. The two Infantry Brigades of the 13th Division met with little opposition, but the 35th Infantry Brigade, 12th Cavalry and Bicharakoff's Russians all had hard fighting throughout and all displayed much gallantry. The Turkish rear-guards were handled skilfully and fought with courage, so we inflicted little material loss on the enemy, but General Marshall had attained his object in making it more difficult in future for the Turks to attack his right flank on the Diyala or to send small forces into Persia. Consequently, he ordered the IIIrd Corps to retire on 6th December to the line Khaniquin—Qizil Robat—Sakaltutan Pass.

SKETCH MAP No 1. UPPER MESOPOTAMIA.



KEY

- MOUNTAINOUS COUNTRY
- MAIN ROADS
- SECONDARY ROADS
- PLAN FOR ATTACKS 24-29 APR. 1918



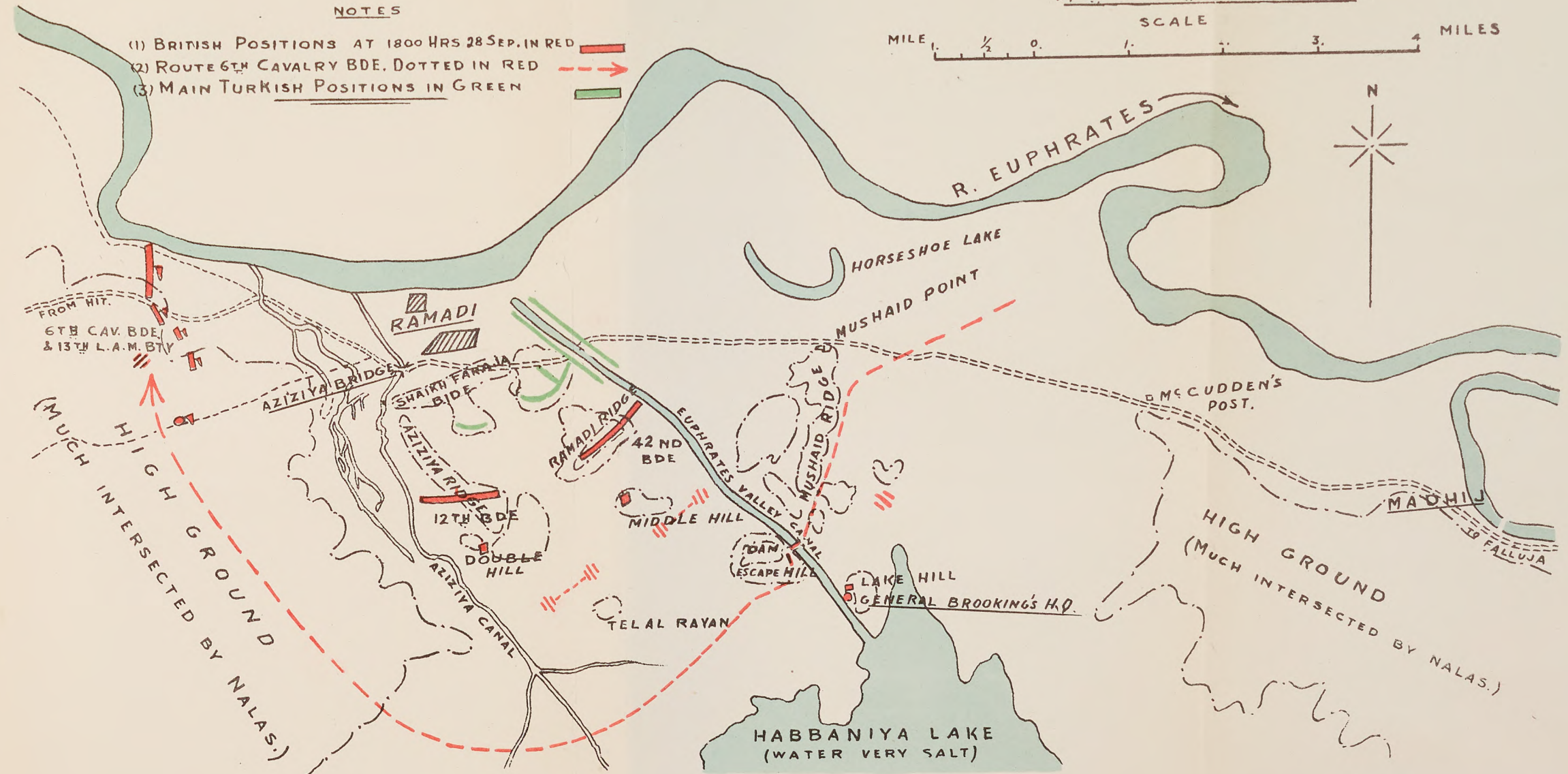
CAPTURE OF RAMADI

27TH TO 29TH SEPTEMBER 1917.

NOTES

- (1) BRITISH POSITIONS AT 1800 HRS 28 SEP. IN RED
- (2) ROUTE 6TH CAVALRY BDE. DOTTED IN RED
- (3) MAIN TURKISH POSITIONS IN GREEN

SCALE
MILE 1 1/2 0 1 2 3 4 MILES



ACTION AT DAUR & TIKRIT

ACTION AT DAUR & TIKRIT

2ND. & 5TH. Nov. 1917.

6TH CAV. BDE

CAV. DIV. H.Q.

7TH CAV. BDE.

TURKISH POSITION

CLIFF 80

TIKRIT

CLIFF 60

8TH INF. BDE

JIBN WADI 60 DEEP

19TH INF. BADE

28TH INF. BDE

7TH DIV. H.Q.

GENERAL COBBE'S H.Q.

AUJA.

PIQUET LINE

H.Q.

21ST INF BDE

R. TIGRIS

ACTION OF TIKRIT, 5TH NOV 1917

SCALE OF MILES.

0 1 2 3 4


N.

RECEIVED
ACTION OF TIRBIT, 5TH NOV 1917

A horizontal number line with tick marks at 1, $\frac{1}{2}$, 0, 1, 2, 3, and 4.

ACTION OF DAUR. 2ND NOVEMBER. 1917.

CAV. DIV.
AT DAY BREAK



DIRECTION OF
7TH DIVISION ATTACK

ADV. GD.
(0530 HRS.)

7TH DIVISION.
(0430 HRS.)

21ST INF. BDE
GROUP
(0600 HRS.)

23. End of Russian Co-operation and move of 3rd and 7th Indian Divisions to Palestine

The Russians and Turks arranged an armistice on 6th December, and opened peace negotiations at Brest-Litvosk on 22nd December. But in spite of this the situation in Mesopotamia was so much improved that in December the C. I. G. S. commenced moving experienced troops from Mesopotamia to Palestine. By the end of that month the 7th Indian Division had left, and their place in the 1st Corps was taken by the recently formed 17th Indian Division. During January 1918 the 18th Indian Division (consisting of the 53rd, 54th and 55th Indian Infantry Brigades) was formed, and in March 1918 joined the 1st Corps in place of the 3rd Indian Division, which also went to Palestine.

MAHSEER FISHING—II TACKLE

BY CAPTAIN J. R. MORRIS, 9TH GURKHA RIFLES

1. *General Description*

Rivers vary so much in size that it is difficult to specify an exact list of tackle that would be ideal for all waters. The tackle described is that considered necessary for average mahseer fishing conditions and should enable an angler to fish in all rivers with a large measure of success. The days have gone when rods of enormous strength were considered necessary for mahseer. Game fighter as this fish is, the rods that are used at home for Spring spinning for salmon and for fly fishing for trout are eminently suitable. The rest of the tackle will probably have to be modified as shown in the subsequent paragraphs. It is essential, particularly when purchasing treble hooks, that the buyer should deal with firms who have experience of the tackle suitable for mahseer.

2. *The Spinning Rod*

An $11\frac{1}{2}$ feet spinning rod weighing, if of greenheart, about 25 ozs. is perhaps the best size for general work. The exact length is not important but the limits should be 10 feet and 12 feet in length respectively. Rods shorter than 10 feet are not satisfactory when you have to cast with a steep bank, or rocks, or bushes directly behind you. Rods longer than 12 feet are too cumbersome and very tiring when fishing in the hot weather.

The action of the rod is difficult to describe; it should be pliant without being too lissome. A very stiff rod will not communicate to the angler the variations of tension and strain and will result in a beginner acquiring "bad hands." Those with no experience of these rods should put themselves in the care of a friend who knows or in the hands of a reliable tackle-maker. The chief factor is not so much the size of the fish that are to be caught, as the weight of the bait that has to be cast. As is shown later the maximum weight of these together with the lead will be $2\frac{1}{4}$ ozs.

If a new rod is being purchased, under no circumstances should a split cane rod be selected. It is a pity that this wonderful material should be unsatisfactory in India, but this is the experience of most anglers I have met. I have owned a number of these rods, both with and without steel centres, and in every case

the material has gradually weakened until at last the rod became useless for either casting or playing a fish. I have attended the *post-mortem* examination of three steel-centred rods and have seen the one-time steel centres shaken out as red rust powder. Greenheart is a much better material for these climates. It has the advantage of being easily repairable by an amateur; loose joints can be rectified and even a break quickly spliced with material available on the spot. When fishing some hundreds of miles away from the nearest tackle-maker this is a great advantage.

Metal joints are a nuisance. They give constant trouble, and will continue to do so until some metal is discovered which will expand and contract at the same rate as the wood of the rod. Spliced joints offer the solution to this problem and the assembling of the rod, when using splicing tape, takes very little extra time.

The "Ringall" cane makes quite a good spinning rod. In Bengal the natural canes can be bought for about one rupee each. They are sold, ready mounted, by Messrs. Manton & Co., Calcutta. Of the two, I prefer greenheart to the "Ringall" cane as it has a nicer action.

3. *The Spinning Reel*

A good reel is the most essential item of the whole outfit. A cheap reel of inferior workmanship will be sure to bring disaster; a wooden reel will not stand the climate. The plain Nottingham type of reel, which is controlled by the pressure of the top of the finger or the thumb on the exposed rim of the drum, is suitable for an angler with experience of spinning. Though certainly difficult to manipulate, this reel gives the angler more sensitive control and hence greater accuracy in casting. For a novice this reel is not suitable. He should purchase one of the automatic control type, such as the deservedly famous "Silex" reel. Reels of the stationary drum type (thread line reels) are not in my opinion suitable for general all-round work. Though ideal under certain conditions for light spinning, they do not hold sufficient line of the required breaking strain for heavy work. Whatever type of reel is purchased it must be large enough to hold 200 yards of line of a breaking strain of about 20 pounds.

4. *Spinning Lines*

Backing is that portion of the line which is wound first on to the reel, and which does not come into play during casting. For

this an undressed silk line or a braided linen line of 24 pounds breaking strain is suitable. To this should be spliced 100 yards of dressed spinning line of a breaking strain of 18, 24, or 32 pounds, according to the weights of the baits being used. For most rivers the 24-pound line will suffice. Messrs. Manton & Co.'s "Lignum Vitae" line is, without doubt, the best spinning line for India.

Both backing and dressed lines require particular care. During fishing expeditions, on return to camp, the portions of the lines that have been used during the day should be taken off the reel and dried. On return from the expedition both line and backing should be thoroughly dried and well rubbed with some such dressing as "Ceroline." In the non-fishing season lines will keep better if hung loosely and in large coils on nails stuck into the wall. During the monsoon the nails should be covered with a piece of cloth, paper, or binding silk, to prevent the rust coming into contact with the line. The above precaution is well worth the trouble if one wants lines to last as long as possible.

5. *Leads*

Of these there are many types, most of which fulfil the double purpose of sinking the bait and preventing the spinning of the bait imparting twist to the line. My own choice is the "Jardine" or spiral type of two sizes weighing $\frac{3}{4}$ and $\frac{1}{2}$ oz. Of these, according to the pace and depth of the water, I put on one or sometimes two of the smaller size at the end of the line just above the swivel. One ounce is the heaviest weight ever likely to be required. If these leads are bent into a partial half-moon shape they will stop any tendency of the line to twist. The "Hillman" ball leads which clip on to the ring of the swivel are also very good.

Another form of lead, which can be made very easily by oneself, is the flat half-circle or rectangular lead. To make these, obtain a sheet of lead from the local bazaar, cut out either circles or rectangles of a size to give the required weight, bend these double across the centre, and pinch them on to the end of the line with a pair of pliers.

6. *Swivels*

These are required for attaching the line to the trace and also for mounting spoons. Open box swivels are satisfactory and can be either of steel or bronze. A dozen of each of sizes 3 and 4

should be sufficient for a start. These are Manton's and Hardy's sizes.

7. *Traces*

Single steel wire (Killin wire) is a good material for traces. It is enormously strong and very cheap. Its main disadvantage is that if it kinks it breaks. This, however, rarely happens and will not occur if the angler takes the precaution of examining his trace occasionally, and changing it for a new one whenever it shows signs of being bent or twisted. The wire is so cheap that many anglers put on a new trace after each fish. Though perhaps ideal, this practice is not strictly necessary. Another small disadvantage is that if taken to the river the spool is apt to get wet, and the wire rusty. This can be easily avoided by keeping the spool at home and by oiling it from time to time. Before setting out, cut off half a dozen lengths of one and a half yards, coil them, place them in a trace tin or an old Barney's tobacco tin, and so be free of the rust bogey. This steel wire is usually made in stout, medium, and fine sizes. The fine size is suitable for all normal fishing.

To make the trace take $1\frac{1}{2}$ yards of the wire, pass it through the eye of the swivel, bend it back to make a narrow U, with one arm of the U about two inches in length, and the other the remainder of the wire. Cross one arm over the other, insert a match between the crossing of the wire and the swivel and twist four to six times, making sure that each wire twists round the other. The latter is essential; if only one wire is twisted round the other it will pull out when a strain is applied. This is quite simple in practice and readily understandable by reference to Plate II. Join the other end of the wire, in the same way, to the swivel of the spoon, and the trace is mounted. A large number of anglers also insert another swivel in the centre of the trace. This is not essential but a second swivel does no harm.

The knot given in paragraph 17 may be used for attaching the line to the trace.

8. *Spoons*

Spoons are without a doubt the most popular lure for mahseer fishing. They are of all sorts of shapes, colours and sizes.

Plate I shows three common shapes, namely, the "Ordinary," sometimes known as the "Special" spoon, the Norwegian spoon, and the Hog-backed spoon.

Colours vary from all silver, silver and copper, silver and brass, silver and black, to all copper. Sizes vary from $1\frac{3}{4}$ inches to 4 inches. Even for the biggest rivers sizes larger than three inches are unnecessary. It will probably be better for a novice to purchase two or three of each type. He can, later, decide on his personal choice. The following initial outlay is suggested:

Two Ordinary spoons 3" weighing $1\frac{1}{4}$ ozs.—all silver colour.

Two Norwegian „ 3" „ 1 oz.—copper colour outside, silver inside.

Two Hog-backed „ 2" „ $\frac{1}{2}$ oz.—brass outside and silver inside.

Two Ordinary „ 2" „ $\frac{1}{2}$ oz.—copper outside and silver inside.

The weights are very approximate and are merely given as a guide.

For those who take the trouble to mount their own spoons the above will be more than sufficient. In nearly every bazaar in India and Burma the local *mistri* will, if given a sample, turn out excellent spoons at the cost of a few annas each.

A few makers mount their spoons with split rings. Nearly all writers on fishing condemn these as they are liable to rust inside where the damage cannot be seen. Should this occur, they will surely lose one a fish. For a number of years I have, however, used Hardy's Attachment Links for mounting spoons. These have never given any trouble and being convenient to use are well worth purchasing. For three-inch and two-inch spoons sizes No. 3 and No. 4 are suitable. The attachment links can also be used for joining the hook to the spoon. Together with an additional swivel they are ideal for this purpose, making a very pliable and reliable mount. A flying mount, as illustrated in Plate I, will be found to be most satisfactory; Punjab wire may be used in lieu of the attachment links, but the additional swivel already recommended, should not be omitted.

I have only met one angler who used single hooks with large spoons. The most common and the best practice is to use one treble hook in both spoons and dead bait mounts. For two-inch spoons (Hardy's) size B6 hooks, and for three-inch spoons size B4 are recommended. It is essential that one should specify SPECIAL MAHSEER trebles when ordering these. The hooks used for salmon and pike fishing at home are not suitable and, if used,

will be crushed flat or pulled out by the powerful jaws of the mahseer.

9. *Dead-Bait Mounts*

Plate I shows two of the many forms of mounts for the small fry that are used as bait. Whether to spin or wobble is often a matter of serious debate. It is really one of personal choice. Though I carry both, I use the wobbler more frequently, because it is easier to alter the bend of the spear and so control the speed with which the bait revolves and because the wobbler can so easily be made by oneself. To do this, brass wire (or an old fashioned hair pin) is used, and the swivel and the hook attachment are fixed in a manner similar to that shown in Plate I for fixing a swivel to a trace. The only disadvantage of these home made wobblers is that one has to use a needle and thread to sew up the fry's mouth and to bind the hook to the side of the fry.

There is, too, the question of whether the lead should be on the line (or trace) or in the stomach of the small fry. The latter is better for light spinning in low water. The former is better for the heavier normal work because half the duty of the lead is to anchor the swivel and prevent the line twisting; because the weight of the lead can be more easily altered to suit the different types of water; and because an unleaded bait spins (or wobbles) at a better angle and in a more lively fashion.

10. *Et Cetera.*

To complete the spinning outfit one requires a casting net with which to catch small fry for dead bait; a file for sharpening hooks; a pair of pliers that "will" cut wire; a spring balance; and a bag to hold all.

11. *The Small Fly Rod.*

The extra light type of trout fly rod so popular at home will not stand up to the casting of even the smallest of fly spoons. On the other hand the owner of an average trout rod, of length from 9 to 10½ feet, need not go to the expense of a new rod. The small rivers he is to fish are unknown and it will be better to defer a purchase until experience of these rivers has been gained.

For normal purposes a greenheart rod ten feet in length weighing about eight ounces is recommended. The type of action is largely a matter of choice. Some anglers prefer a whippy action, others a stiff action. If the beginner will ask his tackle-maker for

a rod whose action is suitable for both dry and wet fly fishing at home he will not be making an unsuitable purchase.

It has been my experience that most tackle-makers at the mere mention of the words "fly spoon" rush off to the darkest corner of their store-room and unearth one of the old pattern of heavy dry-fly rods. Though this will certainly cast a fly spoon, it is far too powerful to give sport when playing the small mahseer. Even the extra light type of trout rod is sufficiently powerful for playing the mahseer, and, if one confines oneself to fly only, quite suitable. The fly spoon is, however, such a popular and successful lure that a rod of the dimensions given above is recommended.

12. *The Reel*

A good reel is an essential part of the outfit. With the tackle-maker many hundreds of miles away such accessories as a spare tongue, fitted to the reel, are essential. When dealing with fish which may vary in weight from one to ten pounds, an adjustable check is also advisable. The reel should be of metal and of the contracted form for quick winding. Chosen to suit the balance of the trout rod, a reel, in size from 3 inches to $3\frac{3}{8}$ inches, should also be capable of holding the line and backing mentioned in the next paragraph.

13. *The Line*

An ordinary, double-tapered, thirty-yard trout line should be selected to suit the action of the trout rod. Compared with a level line, the tapered line is so much more pleasant to use that it is well worth the extra expense. The line should be purchased spliced to 100 yards of undressed silk backing line, of a breaking strain of about 9 pounds, which, when using the trout rod, will be found strong enough for all purposes. If a stronger backing is used, the reel will not hold the required length of line. Although 100 yards will only occasionally be required for dealing with a large fish, this amount, by filling the reel, facilitates the quick recovery of the line.

14. *Casts.*

For the sizes of fly spoons and flies recommended below, level untapered casts of wire gauge .010 and .009 are suitable. The former is often known as *refina* or *fine lake* and the latter is usually referred to as 1 "X" gut. Makers' names and sizes vary so considerably that it is inadvisable to specify the wire gauge until one

knows the particular terms used by a dealer. Casts of one and a half yards in length are quite suitable for most mahseer fishing.

By far the cheapest method of obtaining casts is to purchase hanks of natural gut and to tie these oneself, using the well-known blood knot. (See Plate III.)

Before tying a cast, soak the gut for 24 hours in water to ensure that this is really soft. A useful tip when tying the blood knot is to apply a little glycerine to the knot before pulling it tight. This is particularly useful with the larger sizes of gut, and effectively stops any tendency of the gut to fray.

Casts should be wrapped in a piece of old wash leather and kept in a tin (again one of the Barney's tobacco tins is most suitable). The day before using take out a couple of casts and soak them over-night in a cast damper. After use dry them in a cool shady portion of the house, and store as already described. If so treated, and if sound at the end of the fishing season, gut of the above dimensions will last from one season to another.

15. *Fly Spoons*

For the rod recommended nothing larger than the $\frac{1}{2}$ inch fly spoon should be used; for most occasions the $\frac{3}{8}$ inch spoon is quite sufficient. They may be all silver, all gold, or gold outside and silver inside. Such spoons can be mounted with small single hooks.

16. *Flies*

Though the fly spoon is the most common and popular lure, I would like to persuade the angler to try flies on all rivers. The March Brown, Teal and Green, Silver Doctor, Yellow Spider and the red hackle Dandy Lure would be a suitable collection. The two latter are special mahseer flies of Messrs. Manton & Co.

On the tributaries of the Ganges and Jumna the fly is so successful that I only use fly spoons in cases of high and discoloured waters. Here the Alder, Teal and Black, Teal and Yellow, Black Doctor, Jock Scott, and for fishing after dark the Coachman and the White Moth, are also used. (The Dandy Lure is also very good after dusk.)

In Upper Burma fish are caught on the Silver Doctor, the Yellow Spider and, in the evenings, on a small Black Gnat. The sizes of flies are those of Hardy's sea trout hook Nos. 7 and 9 which are approximately $\frac{9}{16}$ and $\frac{13}{16}$ inch in length. The Dandy Lure is about $1\frac{1}{4}$ inches and it is better if Punjab wire is used, instead of gut, when dressing these. On some of the over-

grown streams of Assam, dry flies tied to represent the insects that drop from the trees have been effective.

There is no known principle on which to base the choice of a fly. Selection is almost entirely a matter of fancy. Luckily the mahseer is not very fastidious and two or even three flies can be fished on the cast.

17. *Knots*

There remains the task of tying the cast to the line and to the fly or fly spoon. For this the "Turtle" knot may be used:

Thread the line through the loop of the cast and place this as shown in figure 1 of Plate IV. Tie the knot shown in this figure and pull tight. (This method may also be used for attaching the swivel of the trace to the spinning line.)

For tying the cast to the fly, thread on the fly as shown in figure 2 of Plate IV and move this up the cast out of the way; tie the same knot and pull this almost tight as shown in figure 3; place the fly, moving it clockwise, through the loop formed, and pull tight on to the eye of the hook. Though there are many knots, a beginner may find it easier to employ this one for all purposes.

The blood knot referred to in paragraph 14 above is illustrated in Plate III. To tie this knot hold the two pieces of gut between the first finger and thumb of the left hand (figure 1). With the right hand twist the smaller end (a) of the gut that is shown shaded twice round the unshaded gut, and place the end as shown in figure 2. Change hands and twist the shorter piece (b) of the unshaded gut, towards the body, round the shaded gut, and place the end of the former as shown in figure 3; ease the gut tight to its final form, figure 4.

18. *The Large Fly Rod*

In these last two paragraphs yet two more methods are described. The novice to angling should neglect these, he will find that not only are they, at the beginning, superfluous, but that the majority of anglers restrict themselves to the methods previously recommended for his use.

On a number of rivers the use of a large fly rod is delightful. Rods of various lengths may be used though it will be found that anything larger than fourteen feet is very tiring in the hot weather.

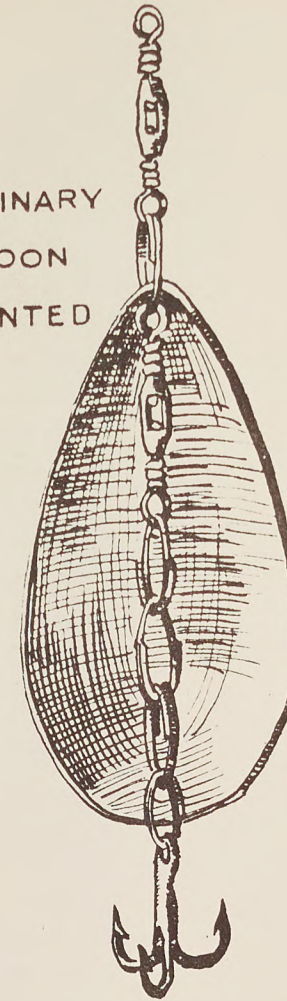
Though the most popular lure is the fly spoon of about an inch in length, flies are equally successful. On the smaller rivers

PLATE I

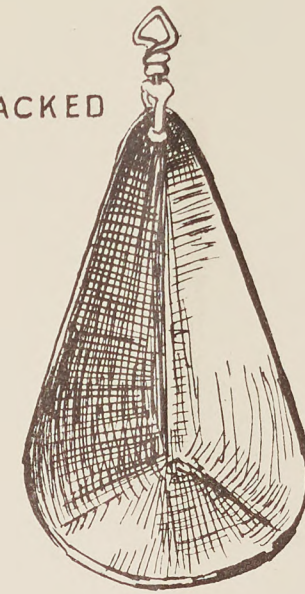
NORWEGIAN



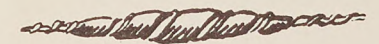
ORDINARY
SPOON
MOUNTED



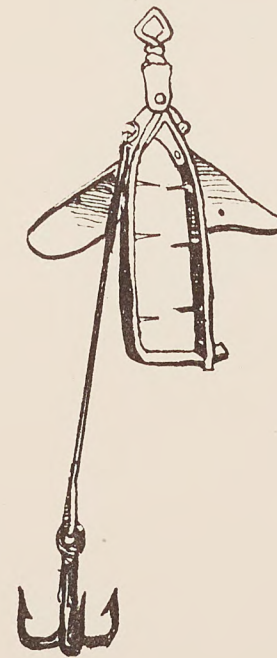
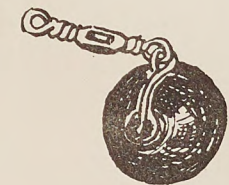
HOGBACKED



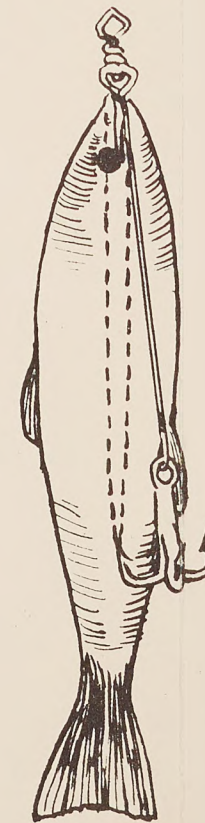
JARDINE LEAD



HILLMAN LEAD



CROCODILE
SPINNER



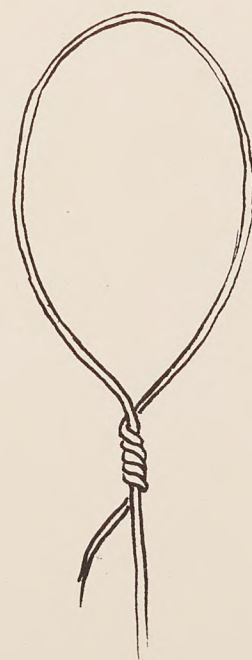
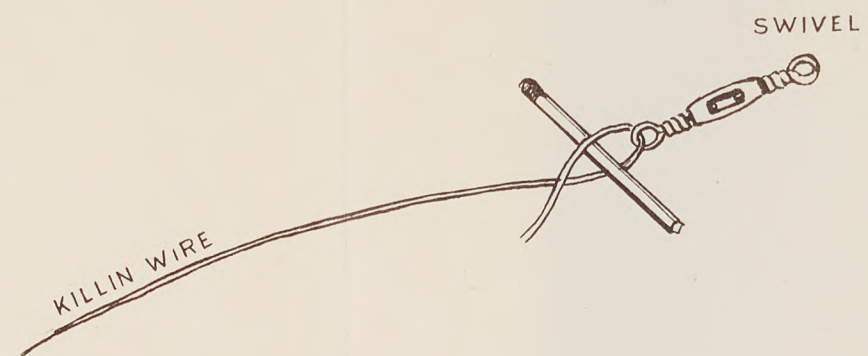
WOBBLER
MOUNTED



WOBBLER

PLATE II

MAKING A WIRE TRACE



WRONG

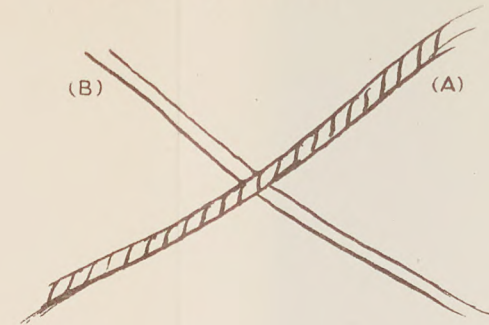


RIGHT

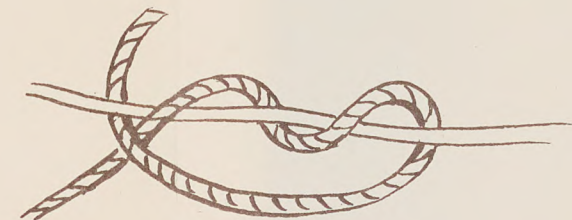
PLATE III

THE BLOOD KNOT

FIGURE
(1)



(2)



(3)



(4)

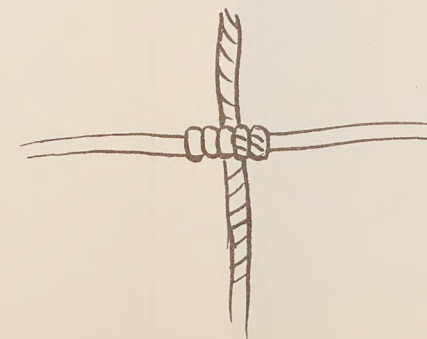
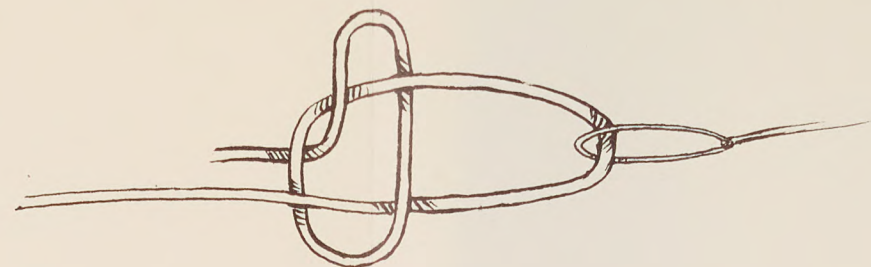


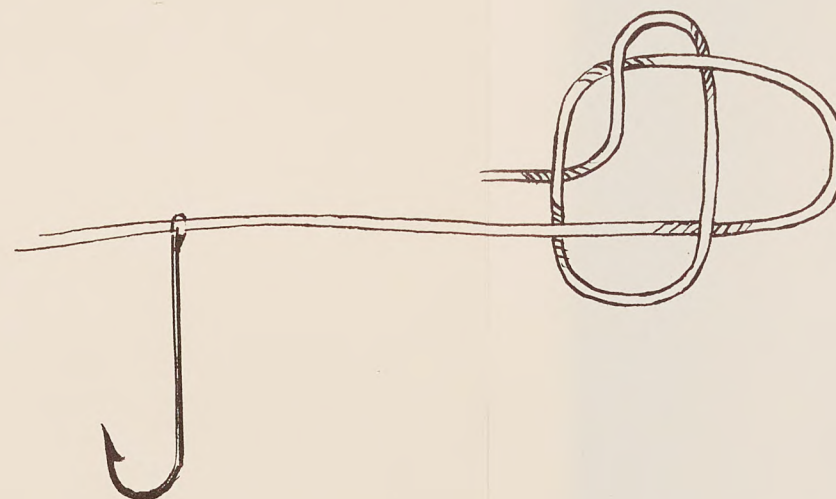
PLATE IV

FIGURE

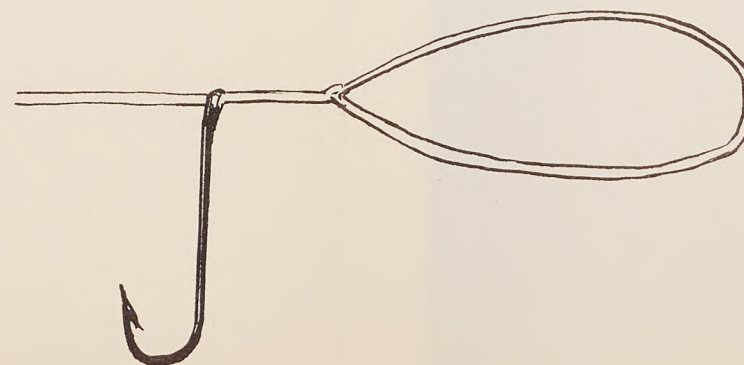
(1)



(2)



(3)



flies from $1\frac{1}{4}$ to 2 inches in length are often all that are required. On the larger rivers flies from 2 inches up to lures of $3\frac{1}{4}$ inches are necessary. Apart from experimental flies I now limit my choice to the Silver Doctor, Jock Scott, Mar Lodge, and the Teal and Green in the big sizes. The latter is only successful when the Chilwa fry are running, at which time it is the best lure.

19. *Light Spinning*

Though I do not think that light spinning rods can ever replace the heavy rod for general use, each type will find its use on some particular river. For those who require a rod of general utility, in addition to the big spinning rod, the one described as suitable for trout and sea trout will prove the most useful. Thread line reels are suitable in many rivers. Their ease and accuracy of casting are a real joy. At home a gut substitute line is generally considered preferable to a silk line. In India, with the dry heat so often experienced, these are very difficult to manage. Contrary to the practice with the heavy rod, the use of dead bait and gold and silver devons is preferred to that of spoons. The devons are used for a change; the more natural dead bait being considered better for the low waters for which this outfit is so suitable. The thread line spinners, with transparent celluloid fins, and the light wobblers, modified by being mounted with mahseer trebles, are also an improvement on the older types. The light spinning rod has so many other uses, such as fishing a live bait, both with and without a float, that the owner of one should certainly bring it out to this country where it will provide many hours of delightful sport.

LETTERS TO THE EDITOR

EDITOR'S NOTE.—A number of criticisms on points of detail contained in the article "Learning to Fly," which was published in the April issue of this Journal, have been received.

Mr. B. S. Leete, Technical Officer to the Directorate of Civil Aviation in India, to whom the matter was referred, explains the conditions under which a pilot, licensed at Home, may fly in India.

DIRECTOR OF CIVIL AVIATION
IN INDIA.

Demi-Official No. L1

Dated Simla, the 26th July 1937.

DEAR SIR,

I am replying to your letters of the 28th April and 5th July.

As the writer states in the article to which you refer, he has no experience with flying in India and the conclusions which he has drawn are in some cases erroneous. He is right, however, in saying that Rs. 600 is a fair average for the cost of an "A" licence. Allowing 15 hours dual at Rs. 35 an hour and five hours solo at Rs. 30 an hour this works out to Rs. 525. Some pupils, however, take more time than this and others take less, on the average slightly more. It must be remembered, however, that the conditions for obtaining an Indian "A" licence are more strenuous than those for an English "A." In fact the standard demanded in India is higher in all categories of pilots' licences.

The writer of the article goes on to say that the Indian authorities do not accept Home licences. This is not quite true, for, if a pilot arrives flying a British registered aircraft, he can continue to fly in India on his English licence which is valid for flying aircraft registered in Great Britain, although it is not normally valid for flying aircraft registered in India. Should, however, the pilot wish to fly Indian registered aircraft he may have his English licence validated for a limited period for this purpose. This will give him time to get in the requisite experience to obtain his Indian "A" and to do the tests which are not demanded of the English "A," and it will also give him time to learn the regulations governing flying in India in which he has to pass an examination. Should a pilot from England only be staying in

India about two or three months there would not be any necessity for him to take out an Indian licence as his English licence could be validated for that length of time. As regards the "A₁" and "B" licences, the "A₁" has now been extended so that its holder can fly for hire or reward during the hours of daylight anywhere in British India other than as pilot on a scheduled air line, although he may fly as second pilot on such a service to gain the necessary experience to obtain his "B" licence. The Indian "B" licence also requires blind flying experience under the new rules.

The "curious situation" to which the writer refers towards the end of his article, that is with reference to an "A" licence pilot with private passengers, does not arise. Neither in India nor in England can a pilot fly beyond the three-mile limit without an "A" licence. Indian aircraft rules do not allow an "A" licence pilot to carry a passenger until the pilot has done 25 hours solo flying and has a certificate as to his competency from a pilot instructor. I think this covers all the points raised. However, should you require any further information, we shall be pleased to help you as far as we can.

Yours sincerely,
B. S. LEETE.

DEAR SIR,

In the July 1937 number of your Journal I saw an article entitled "Object!!" by Major M. R. Roberts, which set me thinking. In the article it is suggested that the word "Object" is not definite enough and that in some cases it is apt to be confused with "Objective." Believing, as I do to a certain extent, that "Object" is not definite enough I cannot help saying that, for the matter of that, nothing is really definite in the sphere of tactics. War being an art and not a science it can never be worked out with mathematical precision. That is why superior generalship has counted, counts, and will always count.

If we leave the word "Object" severely alone and take it for what it is worth, we will invariably attain what we want. Let us see what we aim to express in the "Object" of an appreciation. The answer, I am sure, is that we wish to explain, in a nutshell, our role for the task in hand, with enough terseness to make that

role absolutely clear. If that is what "Object" implies then nobody should be confused about it.

On the other hand, if we take a very broad view of the word, then "Object" can never change and therefore can never be confused, because the object of one and all in war is to subjugate the will of the enemy.

Now that is definite enough but not elaborate enough to guide and control our detailed action in an operation. Hence these off-shoots.

"Object" is of different significance and magnitude to different grades of commanders in the field. But it all boils down to the same thing really, that is to put the task, whatever it may be, in a nutshell. To replace "Object" by "Problem" as suggested by Major Roberts will not in my opinion help a soldier. If he is apt to confuse "Object" he is just as liable to confuse "Problem" also. In fact the chances of confusion in the latter case are much greater, because in any situation the object is always one and the problems are many. As for confusing "Object" with "Objective" the only remedy in my opinion is for the confused to have more and intensive training.

An instance is quoted in the article of a junior officer who, although he gave excellent orders for an attack, had in fact made an unsound plan because his line of advance took his troops into an area which would have forced machine-guns supporting the advance to stop firing. I am certain that this was not due to that unfortunate word "Object" but to one or other of the following reasons:

Faulty or inadequate reconnaissance;

Preparation of T.E.W.T.s under shady trees;

Concentration on the academic rather than the practical side of framing orders; and, last but not least, the lack of live bullets.

I am therefore of opinion that "Object" is good enough for the purpose and should be left severely alone.

Yours faithfully,
GHULAM MOIN-UD-DIN, Major,
Nizam's Horse Artillery.

EDUCATION AND THE INDIAN ARMY

SIR,

In the interesting article published in your July issue under the title of "Education and the Indian Army" the writer states that "in Roman Urdu the graceful, phonetic Persian script is replaced by the ungraceful, unphonetic Latin one, and much of the difficulty of teaching soldiers is caused by the unfamiliarity of the symbols."

A phonetic script is generally accepted to be one in which each sound or phoneme is represented by a separate symbol. In the Perso-Arabic script as modified for use in Urdu there are seven phonetically redundant letters—a result of the phonetically indiscriminate use of 2 letters for the soft 't', 4 letters for the 'z', 3 letters for the 's' and 2 letters for the 'h' sounds. There is no constant symbol for the semi-vowel 'y' frequently found compounded with the preceding consonant in such words as 'kya'—what? (indistinguishable in Perso-Arabic script from 'kia,' the past participle of 'karna'), 'kyon'—why?, 'pyara'—dear and 'gyara'—eleven. In certain words, *hamza* is used to indicate semi-vowel 'y' (e.g. 'lie') though it is also used in Arabic words with its proper function of a glottal stop. There is no established method of writing short vowels or of distinguishing 'ai' from 'i' or 'au' from 'o'. The Perso-Arabic alphabet as used in Urdu is therefore not phonetic.

Major Richards seems to suggest that the Perso-Arabic script is less unfamiliar to the average enlisted Indian than the Latin. Except for the comparatively small number of recruits who have any pre-enlistment Urdu education, the Latin script is more easily acquired by Indians because it is written from left to right—the most natural way for Indians to write and the way in which the bulk of Indian languages are in fact written, and because, like most Aryan languages and particularly Hindi to which most of the tongues of northern India are akin, it has proper symbols for vowels and diphthongs.

The above observations would perhaps seem merely academic and trifling were it not for the fact that Major Richards, unless I am mistaken, wishes to point to the shortcomings of Roman Urdu in order to push his plea for the encouragement of English. I do not wish to give the impression that I am opposed to the teaching of English. I am opposed to its extension on the lines recom-

mended by Major Richards and I am unable to see how his suggestions would "satisfy both schools of thought" whose arguments he enumerates with great fairness. If, for instance, all instruction in Roman Urdu were abolished after the Third Class Certificate, there would be no one who knew Roman Urdu above the Third Class Standard which is necessarily low and quite unable to cope with field message-writing and the training manuals. If these are to be in English there seems to be little point in teaching Roman Urdu at all. A big drive indeed would have to be made to bring the comprehension of the English manuals up to the present standard of comprehension of the Roman Urdu ones and would, I believe, only be possible if English were finally made the *lingua franca* of the Indian Army.

If a middle course is to be steered towards a higher standard of education the possibilities of an improved form of Roman Urdu should be examined. In spite of considerable opposition Roman Urdu has come to be accepted in the Indian Army. In a large number of cases it is the only script which Indian ranks, including Indian officers, can write. It has greatly contributed to the remarkable advances made in Army Education since its introduction. Do not these facts suggest that, rather than face new and possibly far stronger opposition by increasing the use of English, it might be more advisable to aim at perfecting Roman Urdu and developing its use? The alphabet at present in use is not phonetic but it could very easily be made so. The question of the soundness or otherwise of spelling English words as in English might be re-examined in the light of experience gained in this matter in Turkey and Soviet Turkestan. Once a real push backed by expert linguistic knowledge were given to Roman Urdu, there would soon be little shortage of books to embarrass the student.

Roman Urdu provides a convenient compromise between the use of a difficult vernacular script which might be objectionable to certain classes and the greater and eventually universal use of English which, as Major Richards appreciates, has many weighty objections. This does not only apply to the Army. Recent expert enquiries have resulted in a strong recommendation that the vernacular should be far more widely used as the medium of instruction in schools and there is a considerable body of opinion which holds that this would be greatly facilitated by the use of a proper

phonetic Roman alphabet for the preparation of school and technical handbooks. There are many communal and religious difficulties in the way of such a reform the benefits of which have been so amply demonstrated in Turkey and it might not be unfitting if the Indian Army were to show itself as pioneers in this contentious sphere just as it has done in the sphere of rural reconstruction and village uplift.

Your obedient servant,
G. E. WHEELER, Major,
5th Bn. The 7th Rajput Regt.

REVIEWS

THE MAN WELLINGTON

Through the Eyes of Those who knew Him

By MURIEL WELLESLEY. (Constable) 18 sh.

Miss Wellesley follows the promise given in the title. Her story of the great man is told almost entirely by others. Yet her many quotations, culled from nearly a hundred different sources, are chosen with such discrimination, and welded together with such skill, that, instead of a jerky and disconnected narrative, as might well have been expected, this story of her great-grand-uncle runs easily and smoothly throughout. The result is an interesting and very charming study.

Perhaps wisely, no attempt has been made to discuss Wellington's strategy or tactics. The book deals only with the character of the Man, and its effect on his personal dealings with others.

Naturally enough, Miss Wellesley has contrived to portray the Duke in the best possible light, and one gets the impression of a man, who, in his strength of purpose, simplicity and modesty is almost a god. His weaknesses are glossed over, and even, at times, made into virtues,—his virtues are magnified. Yet one cannot doubt his inherent kindness, his constant anxiety for the sufferings of the wounded, his complete and utter disregard of public opinion, and his steadfast belief in the justice and righteousness of his own actions on behalf of his country.

The balance between the various stages of his life is well preserved, from the time of his "unostentatious" birth, until he becomes the world's peacemaker. We read of his early days, when he was a "lonely little boy" and the "dunce of the family," and of his life of comparatively idle pleasure in Ireland, during which time he changed rapidly from one regiment to another (five in all!), until at the age of 25, we find him, as a young colonel of the 33rd Regiment, "blooded" for the first time in the Netherlands Campaign of 1794. One can hardly wonder that during his eight years in India, spent under the patronage of his brother, the Governor-General, his seniors were sometimes embittered by the obvious favour shown to this young officer of 30 years of age, however brilliant his capabilities as a leader.

Before describing his Indian and Peninsular Campaigns Miss Wellesley gives a brief, but very clear description of contemporary

events,—a useful addition to the book, and in the narrative she avoids the burden of innumerable dates by the satisfactory method of showing the year, and her hero's age, at the top of each page.

Wellington's reactions to events in the Peninsula are well told. Surely no other General in history has ever made such a profound personal impression on his troops as he did. And, realising this fact himself, no wonder that, after Waterloo, he said "By God! I don't think it would have done if I had not been there."

In her description of Waterloo the authoress goes into more military details than elsewhere, and it is here that she tends to give a wrong impression, by belittling the effect of the Prussians on the battlefield as a whole. "When the Duke's army had made its great advance, the Prussians began to arrive upon the battlefield, and, joining in the pursuit, sealed the victory." Admittedly the concentration of the Allied Armies was delayed until the late afternoon, but the battlefield was not limited to Waterloo alone. The Prussians, apart from occupying the attentions of Grouchy during the day, began to influence the result of the battle much earlier. This does not however affect the picture of the Man.

Few details are given of his married life,—his marriage itself seems to have been an example of his sense of duty, as opposed to any satisfaction of personal inclinations,—but there is no doubt of his devotion to his two sons, who seem always to have been his first thought.

The book ends with a description of Wellington as the British Ambassador in Paris, before his return to England in 1818.

A. J. D. R.

The I. C. S.

BY SIR EDWARD BLUNT, K.C.I.E., O.B.E.

[(*Faber and Faber, Ltd.*). 8s. 6d.]

Familiar as these initials—I.C.S.—may be, there exists in Britain and elsewhere an astonishing ignorance of the life and duties of the members of the Service. That this should be so is not surprising when we consider the lack of a book providing not only a history of the Service but an intimate description of the day-to-day work of its members and the tasks which they are called upon to perform. This notable gap in our literature has now been ably filled by Sir Edward Blunt.

The opening chapters of the book appropriately contain a brief history of the Service, which traces its origin back to the trading days of John Company. As the Company began to acquire territories, so its traders were gradually transformed into administrators. Moreover, in tracing the development of the Service down to the present day, the author incidentally presents the reader with one of the most compact and lucid sketches of Indian constitutional history that it is possible to find.

Full of interest, however, as these chapters are, the most valuable part of the book is undoubtedly that which describes the life and duties of the present-day civil servant in India. In this intimate sketch the author rightly stresses the two chief characteristics of the service—the variety of the duties which its members perform and the close contact which they have with the people. The civil servant may be administrator, revenue expert, judge, secretary to Government, or diplomat. There is in fact something to suit almost every taste. The life of the district officer (or sub-divisional officer) is perhaps in itself the most varied. He is not only a magistrate who tries criminal cases, suppresses riots, and maintains order generally, but is an administrative officer with a multitude of tasks not the least interesting of which to-day is rural reconstruction. To the people, as the author says, he is not merely the representative of Government, but Government personified.

Sir Edward does not omit to deal with the problems of the very young civilian—his entrance to the Service, probation, arrival in the country and probable domestic arrangements and his training and promotion. Nor does he omit to deal with sport in all the forms in which it is offered to the civilian in India.

Much misgiving has been felt in India and in Britain as to the prospects of the Service under the new Constitution. The author is, we are glad to say, no subscriber to the pessimistic belief that the great days of the I.C.S. are over, and he emphasises that its opportunities for service and valuable work have never been greater than they are now.

Many books about India are marred by the failure to remember that diversity of customs and lack of uniformity in administrative procedure and nomenclature between one province and another are such a marked feature of India that generalised statements are dangerous. It is therefore with particular pleasure that

we note Sir Edward's painstaking and almost entirely successful effort to avoid that pitfall.

In conclusion, we are confident that this book will prove a boon to parents and to the prospective civilian, and we would commend to all who are interested in India this admirably written description of what Lord Willingdon has described as "what is still the finest and most interesting Service that there is in any part of the British Empire."

W. G. A.

BOOKS RECEIVED

"A History of Peaceful Change in the Modern World," by Cruttwell. (Presented by The Oxford University Press, Bombay.)

"Modern Warfare: Armies, not Air Forces decide Wars," by Lt.-Colonel B. C. Dening. (Presented by the North Hants Printing Co., Ltd., Fleet, Hants, England.)

"Delhi: A Historical Sketch," by T. G. P. Spear. (Presented by the Oxford University Press, Bombay.)

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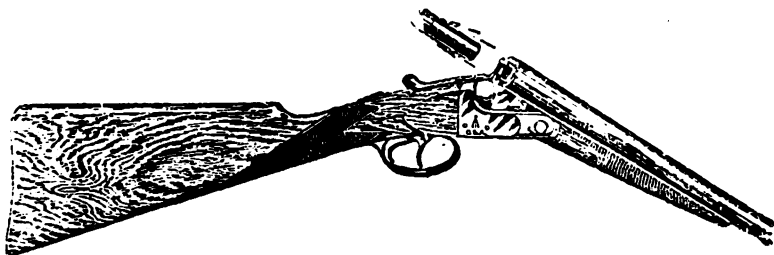
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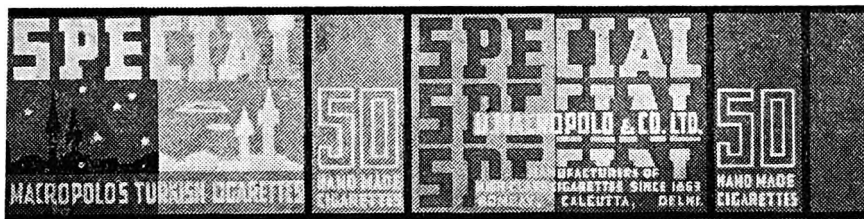
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Lt.-General Sir JOHN BRIND, K.C.B., K.B.E., C.M.G., D.S.O., Adjutant-General in India.

DRY SACK

★ S H E R R Y ★



Extract from Pepys Diary,
24th August, 1660.

*"Hence to Whitehall to the Privy"
"Seal, but nothing to do."*

*"At night by land to my father's"
"house where I found my mother"
"not very well. I did give her a pint"
"of sack."*

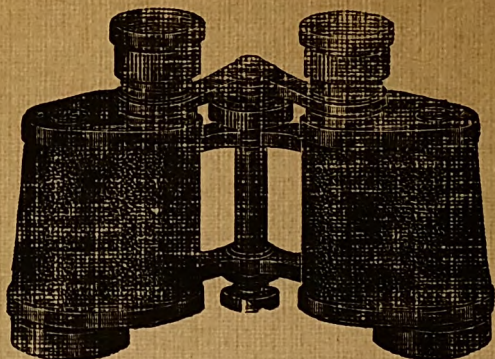
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